EDISON ELECTRIC INSTITUTE

420 LEXINGTON AVENUE, NEW YORK 17, N. Y.

September 27th 1946

To Chief Executives
Member Companies

Enclosed is a copy of the statement on the policy of the Edison Electric Institute on farm electrification as adopted by the Board of Directors at its meeting this month in Pittsburgh. It was the feeling of the Board that in view of the importance of the statement it should have the widest possible publicity.

Accordingly, a news release on the statement has been prepared and is being mailed to 8500 weekly newspapers, 1600 dailies, approximately 400 farm publications, the electrical trade press and a miscellaneous list of special correspondents, radio commentators, etc.

The release, without date, will go to a selected list of 5000 weeklies in mat form, proof of which is enclosed. The release for the news editors of daily papers is dated October 7th. In addition to the release to the news editor of daily papers, copies of the statement of policy will be sent to chief editorial writers of the daily papers.

Extra copies of the statement and the release are available.

H S BENNION
Managing Director

mailed Friday

RURAL ELECTRIFICATION ADMINISTRATION
2000 Massachusetts Ave.
Washington

July 31,1935

Mr. W. W. Freeman, Chairman
Hotel Mayflower
Washington, D. C.

My dear Mr. Freeman:

Please accept my very warm thanks for your interesting letter dated July 24 reporting on the outlook for rural electrification under the Work Relief Act as seen from the standpoint of the private utility interests which you represent. I am very grateful to you and your colleagues on the committee and to the officials and employees of the cooperating companies.

It is gratifying to note that your estimate of the expenditures which can economically be made for rural distribution lines is fully as large as the Congressional estimate of the funds initially required for rural electrification. Indeed the carrying out of your plans in entirety would make it necessary for the Government materially to expand its program of rural electrification. This would be necessary because we have many sound projects pending, submitted individually and in substantial part by public bodies and farm cooperative, for which funds must and will be provided. More projects of this kind are shaping up. I feel confident, however, that our program can be enlarged sufficiently to take care of all the projects you contemplate, as and when they are put into more concrete form.

I will be glad to transmit your observations about appliances to the agency about to be set up to handle this section of the Federal Administration's power program.

REA stands ready to launch its part of the educational program which all have perceived from the beginning to be absolutely essential in the development of widespread rural electrification. This educational campaign can be made fully cooperative in the sense that each agency having a part will conduct its own activity in the light of all the rest.

We recognize the embarrassment under which your committee worked in reflecting regional and even individual situations through the media of national averages. For instance there may be cases where a twenty-five year amortization period would be warranted. If in exceptional cases a longer period than twenty years is thought desirable very convincing reasons should be forthcoming. We prefer to make such cases exceptions from the more conservative twenty year amortization period. Again, while we recognize the widely differing rate systems to which you refer, we cannot argue from this that "the problem of the farmer is not one of rates." On the contrary we hold

rate simplification and even rate reductions over large areas to be the heart of the problem of electrifying rural America. Naturally, in weighing the relative desirability of loans it will be necessary for REA to consider carefully existing and proposed rate structures with reference to developing the large use essential to the success of our program.

REA views favorably many of your suggestions. For instance, it will generally be possible to arrange at one time and under one contract for most or even all the construction to be financed for a given company. Out of the funds to be at our disposal it would appear that REA can finance any program proposed by the private companies, the plans of the borrowers meeting the conditions set as to cost of lines, amortization period, rates, etc.

Our dealings looking to the drafting of all contracts will be with individual companies. Discussions as to costs, project set-ups, revenue, etc. - of necessity varying in each individual case - can best be carried on directly with the representative of such individual companies. We are now organized and authorized to receive requests for loans for rural line construction from public and private agencies. May we invite your further good offices in advising those sections of the industry with which you are in touch that our routines have been established and the maximum of activity is now our desire.

Your committee has rendered the Government as well as the private interests it represents a very real service in the clarification of an important undertaking. May I repeat here my very warm thanks for these valuable services. It has been a pleasure to work with you.

Yours very sincerely,

Morris L. Cooke
Administrator

RURAL ELECTRIFICATION COMMITTEE OF
PRIVATELY OWNED UTILITIES:
Hudson W. Reed
William Chamberlain
Thomas W. Martin
H. F. Smiddy
Grover C. Neff
P. H. Powers
W. W. Freeman, Chairman

THE MAYFLOWER,
Washington, D.C.

July 24, 1935.

Mr. Morris L. Cooke
Administrator, Rural Electrification Administration,
2000 Massachusetts Avenue,
Washington, D. C.

Dear Sir:

Pursuant to your request of May 20, 1935, to the utility executives with whom you conferred on that date, a national survey has been made by the undersigned committee to ascertain the approximate extent to which further development of rural electrification may be effected promptly in cooperation with the Rural Electrification Administration. From the results of this survey, we herein suggest a program for 1935-1936 amounting to $238,249,000, to serve and equip a total of 351,000 rural prospects, of which number, 247,000 are farms.

Basis of Program

1. This proposed increase in farm customers, equal to 32% of the farms now served by the privately-owned utilities, is possible of attainment only through the mutual cooperation of the REA and the privately-owned companies on the following premises:

a. That the utilities consider the immediate urge for rural electrification as a social rather than an economic problem, and undertake to "carry" the increased rural business outlined in this memorandum over the necessary long development period.

b. That the federal government extend credit to the new customers on a basis that will permit them to purchase the necessary equipment to use electric enegy to an extent that will make the building of new lines possible, and advance funds to the privately-owned utilities to cover the cost of the rural lines and service facilities.

2. That the problem of the farmer is not one of rates, but of financing the wiring and purchase of appliances, is indicated by his necessary expenditures of $354 for these facilities, an amount equal to an average of at least seven times the annual bill for farm electric service. Thus, sacrifices in the nature of losses in return on investment incurred by the privately-owned utilities in carrying out the proposed program, will be to no avail unless the terms of payment and the interest rate offered to the prospective new customers for wiring and the purchase of household electric appliances and farm equipment are on a more liberal basis than heretofore available. An opportunity will thus be presented to several hundred thousand rural homes to obtain electric service that would otherwise be impossible until the present income of this group is greatly increased.

Prospective Customers

3. The program herein presented represents one that can be characterized as distinctly rural, as indicated by the predominant number of prospective farm to non-farm customers - 247,000 to 104,000, respectively. Many of the normal 1935 rural extensions financed by private capital, where the number of non-farms exceed those of farms, are either completed or started. Projects already undertaken are not included in the program submitted, which in the main comprehends extensions that would not normally be built in 1935.

Details of prospective customers follow:

	Customers	No. Per Mile
New Lines:		
Farms	206,000	2.6
Non-Farm.	79,000	1.0
TOTAL - NEW LINES.	285,000	3.6
Present Lines:		
Farms	41,000	
Non-Farm	25,000	
TOTAL - PRESENT LINES. . . .	66,000	
Total Farms	247,000	
Total Non-Farms	104,000	
TOTAL NEW CUSTOMERS.	351,000	

4. It has been necessary to obtain the data for the estimates submitted, in the face of very indefinite terms for financing line construction, wiring, and the purchase of appliances. This condition may have had an adverse influence upon the size of the estimated program. It is quite possible that the estimate given can be increased provided a suitable plan of financing is consummated by the REA, the operating companies, and the prospective customers.

5. The construction cost figures given are predicated upon volume building of lines and not piecemeal construction. By volume building is meant not so much long extensions, as the total extensions shown in the estimates of the individual companies. To permit economic planning, and the purchase and distribution of material and labor, all projects for a given company should be passed upon at one time.

Cost of Construction

6. The estimated construction cost to the operating companies is based upon low cost lines consistent with continuity of service. Cost of additional transmission and tie lines, and substations necessary for the new extensions, is not included in the estimate.

7. The estimated average cost per mile of new line is $1,356, including meters, transformers and services for 3.6 customers per mile. As time was of the essence in formulating our survey, it was impossible to contact every operating company. It is, therefore, quite possible that the average cost of $1,356 for a density of 3.6 customers per mile, may be somewhat reduced when all of the companies not contacted

Prospective Customers

4. The program herein proposed represents one that can be characterized as distinctly rural, as indicated by the predominant number of prospective rate to non-farm customers - 847,000 to 104,000, respectively. Many of the normal 1935 rural extensions financed by private capital, where the number of non-farms exceed those of farms, are either completed or started. Projects already undertaken are not included in the program tabulated, which is the main comprehensive extensions that could not normally be built in 1938.

Details of prospective customers follow:

	Customers	% Per Mile
New Lines:		
Farms	706,000	2.6
Non-Farms.	78,000	1.0
TOTAL - NEW LINES.	784,000	2.5
Present Lines:		
Farms	41,000	
Non-Farms	26,000	
TOTAL - PRESENT LINES. . . .	67,000	
Total Farms	847,000	
Total Non-Farms	104,000	
TOTAL NEW CUSTOMERS.	851,000	

4. It has been necessary to obtain the data for the estimates submitted, in the face of very indefinite terms for financing the construction, which, and the purchase of appliances. This condition may have had an adverse influence upon the size of the estimated program. It is quite possible that the authorized plan to increased provided a suitable plan of financing is consummated by the PWA, the operating companies and the prospective customers.

5. The construction cost figures given are predicated upon the building of lines and not necessarily construction. By building is meant not so much long extensions, as the total extensions shown in the estimates of the individual companies. To permit economic planning, and the proper distribution of material and labor, all projects for [illegible] should be started upon at one time.

Cost of Construction

6. The estimated construction cost to the operating companies is based upon low cost lines consistent with continuity of service. [illegible] additional transformers and pole lines, the substations necessary for the new extensions, is not included in the estimate.

7. The estimated average cost per mile of new line is $1,[illegible], including motors, transformers and services for 2.5 customers per mile. In view of the economic [illegible] our survey, it was impossible to contact every electric company. It is, therefore, quite possible [illegible] voltage cost of $[illegible] for a density of 2.5 customers per mile, may be somewhat reduced when all of the companies not contacted

are included.

8. Cost of line construction and service facilities, follows:

Estimated Expenditures

Operating Companies	
78,180 miles of new lines	$ 75,320,000
351,000 service facilities (meters, transformers and services) for new and present lines	38,365,000
TOTAL FOR OPERATING COMPANIES	$113,685,000
Customers	
House wiring (351,000 customers)	$ 41,295,000
Service extensions, to be paid for by customers	3,851,000
Electrical appliances	79,418,000
TOTAL FOR CUSTOMERS	$124,564,000
GRAND TOTAL	$238,249,000

9. The foregoing calculations represent national averages only. Actual costs for individual projects will vary greatly; the unit cost of one line or service facility may be as much as three times that of another, depending upon density of customers, size of customer installation, and type of construction required for natural or local conditions.

Liquidation of Loans

10. Probably no program submitted for expenditures under the Work Relief plan has more probability of liquidation of the government loans than the one herein submitted. About one-half of the allotments advanced would be assumed by the operating companies; the balance would be assumed by several hundred thousand farm and rural residents.

Employment

11. This program conforms in full with the seven principles for re-employment outlined by the President in his last annual message to the Congress;

(1) Permanent and beneficial.
(2) Will not adversely affect present private employment
(3) Thirty-three per cent of total cost will be for direct labor.
(4) Loans are self-liquidating.
(5) Not competitive with private industry.
(6) Work planned principally for Federal fiscal year.
(7) Projects located in forty thousand communities.

12. Our program will reduce unemployment, improve working conditions of present employees, and have a definite effect on national recovery.

13. An equitable distribution of work will result from the large number of individual projects, estimated at 40,000, located in several thousand distribution centers over the entire country. Many of these projects can be started immediately, and the balance as quickly as the prospective customers are sold on the plan of governmental financing for the purchase of appliances and the wiring of buildings.

14. It is estimated that $78,315,000 of the $238,249,000 advanced to the operating companies and the new customers will be spent on direct labor. This amount, approximately 33 per cent of the total expenditures, represents 111,880,000 man-hours of work, at an average rate of seventy cents (70¢) per hour, on projects of a lasting and beneficial nature. The program will also require many thousand additional employees such as demonstrators, and field workers not included in our labor calculations.

Breakdown of Expenditures

Materials and overhead:	
Lines, meters, transformers, and services	$ 78,380,000
Service extensions	2,685,000
House wiring	23,273,000
Appliances	55,596,000
TOTAL	$159,934,000
Labor	
Lines, meters, transformers, and services	$ 35,305,000
Service extensions	1,166,000
House wiring	18,022,000
Appliances	23,822,000
TOTAL	$ 78,315,000

Rates

15. In an effort to promote rural electrification various types of rates have been adopted by individual operating companies. These types may be broadly classified as follows:

a. Those in which the energy cost is comparable with that in adjacent urban sections, but with a higher minimum or service charge to compensate for low density of customers; and

b. Those which offer a low guaranteed minimum, but with a higher cost of energy to compensate for low density of customers.

16. Rates are controlled by state and local regulatory agencies. Therefore, to immediately attempt to standardize rural rate schedules nationally would necessitate the revision of rates for about 3,000,000 consumers under numerous jurisdictions. The difficulties which would arise would be such that the program would be delayed indefinitely. Most operating companies are constantly adjusting their rural rates to promote a more general extension and greater use of

electric service. At the present time rural customers are the most favored class of customers, to which electric service is furnished.

Conclusion

17. The foregoing estimates are predicated upon the understanding that:

a. One hundred million dollars is to be made available to the electric industry for extending the facilities for electric service in rural districts;

b. Through the REA and/or other Federal agencies, the prospective rural customers on present lines and new lines will be financed for any service extensions to be provided by the customer, for the wiring of premises and for the purchase of appliances and appurtenances;

c. The REA and other Federal agencies in cooperation with the electric industry will conduct a national educational campaign on the advantages of electric service to rural inhabitants.

18. In cooperation with the REA we believe the privately-owned utilities can absorb the full $100,000,000 available under the Work Relief Appropriation for construction of additional rural facilities. The program can be started as soon as funds are available and pursued as rapidly as the prospects are sold on the government's financing plan.

19. We suggest the following plan for financing:

a. Money to be furnished to the utilities at specially low interest rates on long term payment. Loans to be repaid (except that advanced payments may be made in whole or in part from time to time), in accordance with either of the following plans as the individual company may select, the loans and repayments to be subject to terms and conditions to be mutually agreed upon:

a-1. Amortize the debt over a period of twenty-five years, or

a-2. By annual payments of 20 percent of the revenue collected from the new rural customers these payments to include the interest charges.

b. Money advanced to the individual companies should be made on a mutually agreed upon unit cost per mile of line, based upon density and type of customers, local physical conditions and type of line required.

c. Money advanced to the customers for wiring and appliances should be at a low rate of interest. Time allowed for payment should extend over the estimated life of the appliances - a minimum of seven years.

20. In consideration of the Rural Electrification Administration and other governmental agencies advancing the required funds to the operating companies for the financing of the lines, meters, transformers, normal service wires and other facilities, and to the customers for financing service extensions and their payments for wiring and appliances, the privately-owned utilities could, subject to the state and local regulatory authorities:

a. Start construction of new lines as quickly as it is possible to sign the prospective customers on the basis of the aid extended to them by governmental agencies;

b. Where mutually desirable, the companies will assist the prospective customer in the selection and purchase of appliances and wiring from established dealers, and in making the necessary financial arrangements with the agencies established for this purpose;

c. Additional employees required shall, wherever possible, be taken from relief rolls, giving preference to former employees now on relief.

21. Our committee has been instrumental in submitting to you several formal applications from power companies for approval of certain rural line extensions contingent upon the advancing of funds by the government, upon terms and conditions to be agreed upon.

22. We understand that discussion of definite terms and conditions will be involved in your early consideration of these applications, and that we will thereafter be in a position to advise companies generally as to terms and conditions which may be regarded as broad standards covering approved rural line extensions.

23. Our committee has set up an organization of trained technicians, thoroughly familiar with all phases of rural electrification, to cooperate at all times with the REA. Through this committee full information regarding the proposed projects, such as amounts to be expended, the progress made, and the number of employees involved, will be promptly transmitted to the government agencies. Conversely, the information from REA will be transmitted promptly to the operating companies.

The problem of actively promoting rural electrification has received serious consideration of utility companies for many years. They have maintained many thousands of rural representatives in the field, promoting the use of electricity. They have generally contributed to the farm schools and agricultural colleges, for the expense

involved in extensive research work to determine new uses for electricity for farm operations. As a result, there are very few farms requiring electricity for major farm operations that are not now served. Additional rural customers must largely be those who use electricity for house-hold purposes and where the total use should bear a fair relationship to the cost of extending and furnishing the service.

The inherent difficulties in the economics of the problem have been discussed at length with you and your staff during the past nine months. It seems unnecessary to lengthen this communication by repetition of such difficulties or re-statement of the financial risks already assumed by companies generally in such development work.

We believe that the Rural Electrification Administration can provide new ways and means for performing an outstanding job of rural electrification during the coming year. It is in this belief that our committee herewith submits its definite suggestions to you and tenders its further pledge of active cooperation.

Very truly yours,

CHAIRMAN.

RURAL ELECTRIFICATION COMMITTEE OF
PRIVATELY-OWNED UTILITIES:

Hudson W. Reed
William Chamberlain
Thomas W. Martin
H. F. Smiddy
Grover C. Neff
P. H. Powers
W. W. Freeman, Chairman.

FARM ELECTRIFICATION

The electric utility business can be divided into three parts: city business, little town business, and farm business. In the beginning it was nothing but a city business. Then, with the coming of alternating current and the evolution of the transmission line, there began about 1910 a big expansion of the little town business. It has progressed steadily until today nearly every little village has 24-hour electric service.

As the outgrowth of new uses for electricity, the farm electric business began to get under way along about 1920. Since then the utilities of this country have built some 200 thousand miles of farm distribution line, bringing 24-hour service to a little less than one million farms.

The early growth of every one of these three classes of business was slow. But as the problems, both of supply and of utilization, were overcome and as customers began to accept and use the service to a greater extent, the rate of development increased materially. While the youngest of these three movements - the farm business - has not progressed as far as the other two, it has made an excellent start. Up to date the development has been made on a very sound basis so that the foundation for future growth has been well laid.

In the United States it has been guided by the joint studies, suggestions, and recommendations of cooperative groups that were interested not only in the manufacture and distribution of electric power but also in the economical and efficient use of

such power by the farmers. I believe that fewer mistakes have been made to date in the development of the farm electric business than would have been made if either the utility companies or the farm organizations had acted independently of each other and had attempted to develop electric service alone. Through the cooperative studies, the utility people got first hand information on the problems of the farmers and the farmer representatives learned something about utility problems. The result was a better mutual understanding and respect which is so necessary to the efficient solution of reciprocal problems of this kind. I sincerely hope that the cooperation that has existed to date will not only be continued but will be made more effective and more complete.

Through these cooperative activities during the past 10 years, the idea has been firmly impressed upon the minds of the utility people that the cost of farm lines must be reduced so that the cost of electric service to the farmers can be made as low as possible. At the same time the representatives of the cooperating farm groups learned that it is not economical in the long run to put up a line that is too flimsy and cheap. They recognize that satisfactory service cannot be obtained from such a line. As a result there has been developed a type of line which has a reasonably long life and from which satisfactory service can be obtained and yet is low in cost. By 1930 most of the companies who originally built farm lines very much after the standard of city lines had put their engineers to work and had designed farm lines to fit the conditions imposed by farm service.

With the very valuable assistance of the agricultural colleges and experiment stations throughout the country, these

cooperative studies developed many new types of farm machinery designed particularly for electric drive. This equipment was developed with the idea of rendering satisfactory service to the farmers and at the same time making it possible for the utilities to supply the necessary power at low cost.

The results from all these cooperative activities have, in my opinion, been of great benefit to the development of the farm electric business. The investment in farm distribution lines has been held down very materially and there have been tremendous savings in the cost of electric equipment to the farmers without in any way sacrificing the quality of the service. This is the reason I say that the development to date has been made on a sound basis and a good foundation has been laid for future expansion.

It is estimated that utilities have already spent something over 200 million dollars in the building of farm lines and the farm customers have spent a like amount for wiring their places and for equipment to make use of electric service. Altogether there has been invested on both sides, approximately one-half billion dollars. This shows the size of this job known as rural electrification.

It is true that less than 15% of the farms now have electric service and it is the hope and wish of every one connected with the development that lines will be built as rapidly as practicable to extend this service to additional farms. But it is also the hope and wish of the people who have been most closely associated with this movement that it proceed on the sane, orderly, and sound basis on which it has reached its present status. It will be most disastrous if some wishful thinking leads this development into

channels where serious mistakes will be made which will be costly, not only to those who make the utility investment but to the farm users as well.

Any business that cannot eventually carry itself but must be subsidized is sooner or later going to fall. It is my opinion that the farm electric business can be built so that it will carry itself, that it need not be continually subsidized, and that it can be made a permanent business. To bring about this condition, all connected with the development must submerge their wishful thinking to plain straight thinking based on facts.

We know that in the Middle West the average farm line serves somewhere between 3 and 4 customers a mile. We also know that the voltage necessary to render satisfactory service over a wide area in this part of the country is 6900 volts. We know that if the farm load is to be developed up to a satisfactory point, it will, on the average, require a 3 KW transformer for each customer. We know that a typical mile of farm line including transformers, all the necessary protective devices, meters, service drops, etc., if built so as to give reasonably long life and satisfactory service, will cost from $1200 to $1400 depending on local conditions. With these facts before us, it is a simple matter to determine what the charges for farm service must be if the utility company is to earn a reasonable return on the money it has invested to serve farmers.

In determining these charges, I believe the utility should base them upon an average consumption somewhat higher than the present average because we all know that the development of farm load has only begun and that the average consumption must be built up

during the next 10 years to a point very much higher than it is now. This means that the companies which follow this procedure would, for the present, earn a lower rate of return during the development period, but as the use of energy increased, they would earn a reasonable return on their farm line investment. Furthermore, in determining rural charges, I believe that farm business should be given the benefit of the doubt on all points open to reasonable question. In other words, the costs charged against farm line operation should be held as low as they reasonably can be.

I do not believe that the farmer himself wants the service supplied to him on any other basis than the one just outlined. He does not want his friends in the city to pay part of his electric bills - all he wants is to know that the bill is fair and reasonable and that he is getting enough out of the service so that he can afford to pay a fair and reasonable bill. The various state regulatory commissions are in a position to determine whether the rates charged are fair and reasonable.

There is some talk these days of disregarding the facts which I have just briefly enumerated and of making rates to farm customers lower than will yield a fair return when the business is fully developed. That means that the city people would have to pay a part of the farm electric bills. In my opinion this is unsound, dangerous, and will result in disaster to the utility companies and to the farm customers as well. The urban customers do not want to pay for farm electrification any more than the farmers want them to pay their bills. Any utility that makes such a set-up will find that as the farm business increases and the subsidy paid by the city customer increases, the city people will soon be talking of their

own municipal plant for which they will pay only the cost of their own service without carrying a part of the farm business. Before very many cities on any utility system put in municipal plants, the business of that utility will be jeopardized and it may no longer be able to continue serving farms at the "below cost" rates. In fact, the loss of the city business will increase the actual cost of serving the farmers, and a condition may be created under which the farmer will not be able to pay the cost of serving him and will be forced to give up electric service altogether. For the most part, municipal utilities are not much interested in extending service into the country. The net result of the whole thing can easily be that the utility would be bankrupt and service to farmers would be discontinued as a result of this procedure. This sort of development is unsound and is bound to lead to trouble. For that reason I hope that no utility company will set up rate schedules under which farmers will be served at less than cost.

On the other hand, I think a utility must recognize the fact that it cannot expect to get a full return from the farm business during the present development stage. ~~They~~ It must be willing to take a small return at this stage and aggressively build up the business so that it will in time pay a full return on the investment. There is nothing strange or novel in this policy and procedure. The same program has been followed in the development of the city business and of the little town business.

Prior to the depression, the utility companies were building a great number of farm lines and farm service was being extended quite rapidly. With the coming of the depression, they could not secure the funds to continue this development at the same pace.

At the same time the farmers were short of the money needed to wire farm buildings and buy utilization equipment. Therefore, the depression very greatly slowed up the progress of rural electrification in this country, although each year the number of farmers receiving electric service continued to increase. Now, the creation of the Rural Electric Administration at Washington, with a hundred million dollars to be used in the building of farm lines, has brought a new force into this rural electrification movement.

If an appreciable part of the R.E.A. hundred million dollars can be loaned to utility companies to finance the building of new farm lines, the movement should now go ahead at the same rate or even more rapidly than it did immediately before the depression. The utility companies are the logical people to build these lines because they have already built about 95% of all the farm lines in this country. Their men are trained to build and operate electric lines. They are now doing business in practically every city and village in the country and can get under way very rapidly as soon as funds are made available. The R.E.A. says it is willing to loan money to any one, who will build satisfactory farm lines and charge reasonable rates, on the basis of 3% interest on the unpaid portion of the loan and with annual amortization payments over a period of 20 years. I believe that most utility companies can afford to borrow money on this basis for the building of farm lines into any territory where such lines are justified. While some of the companies serving large communities may have sufficient money to finance all farm lines in their territory, I am quite sure that many companies are not able to do this and in order to get into a farm building program of any magnitude, will need to

borrow money from some source. As a matter of fact, the big part of the farm line building job will have to be done by those companies that are rural in character and, as a rule, short of cash. It is in the territory served by those companies that a very large part of the unserved farmers live. It seems to me that every utility company which has good farming territory not yet supplied with electric service should immediately make the necessary surveys to determine where lines should be built. Then they should make application to the R.E.A. for necessary loans to finance those lines wherever the farmers desire service. Such a program will not only further the development of rural electrification but will also stimulate business and create jobs for men which in itself is highly desirable.

I earnestly recommend that no contract for a loan be made which contains an agreement to build lines that are inadequate to furnish satisfactory service or are of such character that they will not be reasonably long lived. I further recommend that no rates be agreed to which are below the standards I have tried to set up in this paper. The rates must be sound if rural electrification is to be built on a permanent basis.

Paper presented by G. C. Neff at
Indiana Electric Association,
Purdue University, November 8, 1935

Bulletin

WISCONSIN POWER AND LIGHT COMPANY

Cost of one mile of 6900 volt farm line without the transformer or service connections	$ 700.00
Cost of three complete service installations	550.00
Total average cost per mile of electric farm line	$1,250.00

This is an average investment cost of approximately $400.00 per customer. Assume that this $400.00 is borrowed from REA to build an extension to one farm customer in Wisconsin the following amounts will have to be paid annually to government agencies because of this borrowing and building:

Annual payment to REA	- (6.72% of $400.00)	$ 26.88
Property taxes	- (2% of $400.00)	8.00
3% Sales Tax	- (3% of $ 72.00)	2.16
Total annual payment to governmental agencies for each new customer		$ 37.04

This is more than $3.00 per month per customer and does not pay for one single kilowatt hour furnished the customer. The first $3.00 per month paid by the farm customer must be turned over to government to satisfy its requirements.

To maintain and operate the line will cost at least 4% per year or	$ 16.00
The line and transformer losses for each customer using 50 kilowatt hours per month will be at least 30 kilowatt hours per month making total requirements 80 kilowatt hours per month or 960 kilowatt hours per year which at 1.75 cents per kilowatt hour totals	16.80
Cost of maintaining, calibrating and reading meters, keeping books, billing and collecting per year	5.25
Annual Operating Costs	$ 38.05
Total of amounts paid to government and operating cost per farm per year	$ 75.09

The Wisconsin Power and Light Company now charges the farmer $72.00 per year for this service. There are no charges in the above cost analysis for

1. General expense
2. Load building costs
3. Customer turnover cost
4. Losses from collections

5. Insurance
6. Depreciation (while the above costs include amortization of costs no provision has been made for funds to rebuild the line at the end of 20 year period)

Any cooperative that expects to furnish electric service to farms for $2.00 or $3.00 per month will surely be disappointed for the payments to government alone will be equal to or more than this.

Prepared by G. C. Neff, President
Wisconsin Power and Light Company
November 11, 1935

STATEMENT OF EDISON ELECTRIC INSTITUTE

POLICY ON FARM ELECTRIFICATION

About one-fourth of the occupied farms in the United States are located more than one-quarter mile from electric distribution lines, and three-eighths of all occupied farms are not using electric service. There is an important task yet to be completed, and the Edison Electric Institute desires to make clear its attitude toward the extension of farm electrification. Its interest in the matter is indicated by the fact that electric operating companies serve at retail about 60 per cent of the connected farms and through wholesale contracts supply a large part of the electric power used by the other 40 per cent.

In the interest of best serving the public, it is the policy of the Edison Electric Institute, working through its member companies:

1. To promote the extension of electric lines as rapidly as possible, in an efficient manner, to help make electric service available to the remaining one-fourth of the farms of this country that are still beyond existing lines, and to increase the number of users of service along existing lines.

2. To foster cooperation between managers of operating companies and officials of rural cooperatives on all matters of mutual interest, to reach better understandings on all questions that naturally arise when two separate distribution systems operate in adjacent territory.

3. To foster the idea that extensions of lines to be built should be constructed in each instance by that operating company, REA cooperative, or other agency that is in the best position to build the extension most economically.

4. To advocate that operating companies provide facilities so that cooperatives can buy power in adequate amounts at fair prices, thereby making unnecessary and undefensible the use of federal money by REA cooperatives or other government agencies for generation or transmission equipment that would largely duplicate existing installation.

5. To foster research and development in rural power lines to improve the quality and reliability of rural electric service.

6. To promote within its membership, through the investigations and studies of its farm committees, new developments and ideas to increase the usefulness of electricity to the farmer.

7. To join with other national groups interested in farm electrification in the support of research work, preferably through agricultural colleges and experiment stations in the development and adaptation of improved equipment for farm operations; to cooperate with and stimulate manufacturers in developing and manufacturing such equipment; and to participate in the dissemination to farmers, through agencies such as the Agricultural Extension Service, of factual information concerning such new developments.

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STATEMENT OF RULES RURAL ELECTRIC INSTITUTE

POLICY ON FARM ELECTRIFICATION

About one-fourth of the occupied farms in the United States are located more than one-quarter mile from electric distribution lines, and three-eighths of all occupied farms are not using electric service. There is an important task yet to be completed, and the Rural Electric Institute desires to take clear its attitude toward the extension of farm electrification. Its interest in the matter is indicated by the fact that electric operating companies serve at retail about 60 per cent of the occupied farms and through wholesale contracts supply a large part of the electric power used by the other 40 per cent.

In the interest of best serving the public, it is the policy of the Rural Electric Institute, working through its member companies:

1. To promote the extension of electric lines as rapidly as possible, in an efficient manner, to bring rural electric service available to the remaining one-fourth of the farms of this country that are still beyond existing lines, and to increase the number of uses of service along existing lines.

2. To foster cooperation between managers of operating companies and officials of rural cooperatives on all matters of mutual interest, to reach better understandings on all questions that naturally arise when two separate distribution systems operate in adjacent territory.

3. To foster the idea that extensions of lines to be built should be constructed in each instance by that operating company, REA cooperative, or other agency that is in the best position to build the extension most economically.

4. To advocate that operating companies provide facilities so that cooperatives can buy power in adequate amounts at fair prices, thereby making unnecessary and undesirable the use of funds loaned by REA cooperatives or other government agencies for generation or transmission equipment that would largely duplicate existing installations.

5. To foster research and development in rural power lines to improve the quality and reliability of rural electric service.

6. To promote within its membership, through the investigations and studies of its farm committees, new developments and ideas to increase the usefulness of electricity to the farmer.

7. To join with other national groups interested in farm electrification in the support of research work, preferably through agricultural colleges and experiment stations in the development and adaptation of improved equipment for farm operations; to cooperate with and stimulate manufacturers in developing and manufacturing such equipment; and to participate in the dissemination to farmers, through agencies such as the Agricultural Extension Service, of factual information concerning such new developments.

SERVING THE HEART OF WISCONSIN

WISCONSIN POWER AND LIGHT COMPANY
122 W. WASHINGTON AVE.
MADISON 1, WISCONSIN

September 17,1946

Mr.H.S.Bennion,
420 Lexington Ave.
New York City

Dear Mr.Bennion:

I approve of the program of getting publicity on the rural electrification statement as set forth by Mr. Coleman and attached to your letter of the 17th.

I am sure the mat service would help a great deal in getting wide publicity. I am perfectly willing to spend $650.00 unless you think we would be getting into difficulty by doing so. I will leave that matter up to your judgment and final decision.

Very truly yours,

Grover C. Neff

Grover C.Neff
President

GCN-m

WISCONSIN POWER AND LIGHT COMPANY
122 W. WASHINGTON AVE.
MADISON 3, WISCONSIN

September 17, 1946

Mr. H. S. Bennion,
420 Lexington Ave.
New York City

Dear Mr. Bennion:

I approve of the program of getting publicity on the rural electrification statement as set forth by Mr. Coleman and attached to your letter of the 12th.

I am sure the net service will do a great deal in getting wide publicity. I am perfectly willing to spend $250.00 unless you think we would be getting into difficulty by doing so. I will leave that matter up to your judgment and final decision.

Very truly yours,

Grover C. Neff
President

GCN-m

SERVING THE HEART OF WISCONSIN

WISCONSIN POWER AND LIGHT COMPANY
122 W. WASHINGTON AVE.
MADISON 1, WISCONSIN

September 16,1946

Mr.H.S.Bennion
420 Lexington Ave.
New York City

Dear Mr.Bennion:

Attached are two copies of the statement on the policy of the Edison Electric Institute with reference to rural electrification. It seems to me that this statement now conforms to the wishes of the Board and is the policy of the Institute.

I plan to incorporate a statement to the effect that the Board of Directors of EEI has adopted the policy shown on this statement and propose to read the statement at the annual meeting of the state utility association of Pennsylvania when they meet in Pittsburgh on October 1.

It seems to me that it is in the best interests of the institute and our industry as well to do whatever you can to get as much publicity to the statement as you can. I am sure the Electrical World, Electric Light and Power, the member companies themselves should be informed so that they can take whatever action they desire to take with reference to the statement. You, of course, have your regular outlet that I presume you will contact and supply with the necessary material.

Very truly yours,

Grover C. Neff

Grover C.Neff
President

GCN-m

WISCONSIN POWER AND LIGHT COMPANY
122 W. WASHINGTON AVE.
MADISON 1, WISCONSIN

September 16, 1946

Mr. H. B. Bonnion
420 Lexington Ave.
New York City

Dear Mr. Bonnion:

Attached are two copies of the statement on the policy of the Edison Electric Institute with reference to rural electrification. It seems to me that this statement now conforms to the wishes of the Board and to the policy of the Institute.

I plan to incorporate a statement to the effect that the Board of Directors of EEI has adopted the policy shown on this statement and propose to read the statement at the annual meeting of the state utility association of Pennsylvania when they meet in Pittsburgh on October 1.

It seems to me that it is in the best interests of the Institute and our industry as well to do whatever you can to get as much publicity to the statement as you can. I am sure the Electrical World, Electric Light and Power, the member companies themselves should be informed so that they can take whatever action they desire to take with reference to the statement. You, of course, have your regular outlet that I presume you will contact and supply with the necessary material.

Very truly yours,

Grover C. Neff
President

GCN-m

COL. BENNION W. COLEMAN SEPTEMBER 25,1946

You may wish to advise Mr. Neff that in addition to the distribution of the statement and news release on the policy of the Edison Electric Institute on farm electrification to newspapers and other publications, Ted Crosby will handle distribution to approximately 100 radio commentators.

He also tells me that they will make the substance of the policy into an electrical recording on the Agricultural Washington weekly radio program. At the present time twenty stations are using this program.

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COLONEL BENNION W. COLEMAN SEPTEMBER 17,1946

I am attaching two copies of the draft of the proposed news release on the Institute's statement of policy on farm electrification. The seven points of the statement have been briefed in this release, because of the anticipated space limitation in the papers. This particular release is directed primarily to the weekly newspapers. A slightly different version will be prepared for the daily papers.

The Western Newspaper Union will set the release in type and prepare mats for mailing to a selected list of 5,000 weeklies for a fee of $650. This mailing would cover the newspapers of the country normally using mat service in the production of a considerable part of their papers. The Newspaper Union total mailing list of weeklies covers 8,500 papers. The release, without the mat service, could be mailed to the additional 3,500 weeklies.

In addition to covering the weekly papers, either by mats or by mimeographed release, we plan to send a release covering the statement in full, to the 1600 dailies in the country and also to all farm publications, which number about 400.

To sum up -

Mats ~~or mimeo~~ to	5000 weeklies
Release to	3500 additional weeklies
Release to	1600 dailies
Release to	400 farm publications
Miscellaneous mailing including Member Companies, trade press, special correspondents, etc. . . .	1000
Total proposed mailing	11,500

I have also attached a memo to the editors to go out over Mr. Neff's name, if he thinks it desirable.

Due to the difficulty in synchronizing mailings with printing schedules of weekly newspapers, I believe it will be desirable to have the release read "For Immediate Release" rather than dated in connection with the PMA meeting.

I am attaching two copies of the draft of the proposed news release on the Institute's statement of policy on face photographs. The seven points of the statement have been included in this release, because of the multiplied space limitation in the papers. This release is directed primarily to the weekly newspapers. A slightly different version will be prepared for the daily papers.

The Western Newspaper Union will set the release in type and prepare mats for mailing to a selected list of 8,000 weeklies for a fee of $800. This mailing would cover the newspapers of the country normally using mat service in the production of a considerable part of their papers. The Newspaper Union total mailing list of weeklies covers 8,800 papers. The release, without the mat service, could be mailed to the additional 8,800 weeklies.

In addition to covering the weekly papers, either by mats or by mimeographed releases, we plan to send a release covering the statement in full, to the 1800 dailies in the country and also to all farm publications, which number about 400.

To sum up -

Mats covering to 8000 weeklies	
Releases to	8800 additional weeklies
Release to	1800 dailies
Release to	400 farm publications
Miscellaneous mailing in-clude city labor companies, trade press, special correspondents, etc. . . .	1000
Total proposed mailing	8,800

I have also attached a memo to the editors to go out over Mr. Neff's name, if he thinks it desirable.

Due to the difficulty in synchronizing mailings with publishing schedules of weekly newspapers, I believe it will be desirable to have the release read "for Immediate Release" rather than dated in connection with the PMA meeting.

BREAKDOWN OF MAILING ON RELEASE " POWER MEN DEFINE POLICY ON FARM ELECTRIFICATION"

Mailed by Western Newspaper Union

RELEASE TO WEEKLIES	* DAILIES	STATEMENT	~~MAT & PROOF~~	NOTE TO NEWS EDITOR	NOTE TO CHIEF EDITORIAL WRITER	
3500	-	0	(5000 weeklies)	3500	0	(weeklies)
-	1600 (news editor)	0	0	1600	0	(dailies)
-	~~1600~~	1600 (Chief editorial writers)	0	0	1600	(dailies)
376	~~376~~	376	0	376	0	(agric.pubs.)
-	200	200	0	0	0	(trade press & corres.)
-	0	212	212 (proof only)	0	0	(Executives)
~~3500~~	~~5776~~	2388	212	5476	1600	
3876	2176	200				
100 plus 100 of this	200	2588				
3976	2376					

100 copies of Release and Statement - Godley
100 " " " - Crosby

3600

3500
~~2176~~
~~2388~~
212
5476
1600
16,952

ANALYSIS OF MATTER ON RELEASE " POWER NOW MEETING POLICY ON FARM MECHANIZATION"

	RELEASES TO NEWSPAPERS	* MAGAZINES	STATIONERY	PROOF	NOTE TO NEWS MEDIUM	NOTE TO ONLINE EDITORIAL WRITERS
(weeklies)	3500	-	0	0	3500	0
(dailies)	-	1800	0	0	1800	0
(dailies)	-	1800	0	0	0	1800
(agric.Pubs.)	-	376	376	0	376	0
(trade press & corres.)	-	200	200	0	0	0
(Incentives)	-	0	212	212	0	0
	3500	3376	2788	212	5676	1800

3500
3376
2788
212
5676
1800
15,352

July 13, 1949

To Wisconsin REA News:

Your editorial in the June 1949 issue of The News makes statements about me and my attitude toward rural electrification that are not true.

You state that I am a bitter opponent of rural electrification. Let us look at the facts. The Wisconsin Power and Light Company, of which I am president, began serving farmers in Wisconsin in an aggressive manner in the year 1926. At the present time that company serves more farm customers than any other utility in the State of Wisconsin and serves more than one-half as many farms with electric service as all of the REA co-ops in the state. If I were a bitter opponent of rural electrification, it is hardly likely that the company that I head would have been so active in building farm lines to serve the farmers in ~~the~~ its territory ~~it serves~~.

Beginning in 1921, I began advocating the desirability and importance of extending electric service to the farms of this country. In the December 1, 1923, issue of Electrical World, one of the leading magazines of its type, my picture appeared in the front piece with this comment below: "A central station company executive who has contributed a winning impetus to the movement for farm service."

From 1923 to 1928, inclusive, I was Chairman of the National Association on Rural Electrification. From 1924 to 1939, I was Secretary and Treasurer of the Committee on the Relation of Electricity to Agriculture, which did so much ~~for~~ to develope machinery and rural electrification. If I had been a bitter opponent of rural electrification as your editorial states, ~~it does not seem that~~ I would not have taken an active part in the above-mentioned things. On the contrary, for the last quarter-century, I have been an earnest advocate of and

equipment & suitable for farms

Dear Mr. Ryan:

Your editorial in the June 1949 issue of The Harvester mentioned a great deal of activity towards rural electrification that are not true.

You state that I am a bitter opponent of rural electrification. Let us look at the facts. The Wisconsin Power and Light Company, of which I am president, began serving farmers in Wisconsin in an aggressive manner in the year 1926. At the present time this company serves more farm customers than any other utility in the State of Wisconsin and serves more than one-half as many farms with electric service as all of the REA co-ops in the state. If I were a bitter opponent of rural electrification, it is hardly likely that the company that I head would have been so active in building farm lines to serve the farmers in the territory it serves.

Beginning in 1931, I began advocating the desirability and importance of extending electric service to the farms of this country. In the December 1, 1933, issue of Electrical World, one of the leading magazines of its type, my picture appeared in the front along with this comment below: "A central station company executive who has contributed a winning impetus to the movement for farm service."

From 1933 to 1935, inclusive, I was Chairman of the National Association on Rural Electrification. From 1935 to 1939, I was Secretary and Treasurer of the Committee on the Relation of Electricity to Agriculture, which did so much for rural electrification. If I had been a bitter opponent of rural electrification, a rural cultural miracle, it does not seem that I would have taken an active part in the above-mentioned things. On the contrary, for my last twenty-seven years, I have been an earnest advocate of rural

promoted the extending of electric service to the farms of our country on a sound basis.

The rest of your editorial is about as misleading as the statement I have taken the trouble to answer in detail, and I hope that you will do whatever is necessary to correct the false impression you have given your readers about my attitude toward rural electrification.

Very truly yours,

Grover C. Neff
President

GCN:EF

WISCONSIN POWER AND LIGHT COMPANY

122 West Washington Avenue
Madison 1, Wisconsin
July 19, 1951

Mr. Donald D. Hoover, President
Bozell & Jacobs, Inc.
31 West 47th Street
New York 19, New York

Dear Don:

When Jimmy Frank returned from the recent Steering Committee meeting in Chicago, he said that some of the members of the committee wanted me to prepare a statement which they could use with their friends to offset the charge made by Clyde Ellis and his crowd that I had thought rural electrification was practically completed in 1935. I am glad to do this.

In the first place, Clyde Ellis says that the utility industry will, during 1951, advertise the claim that rural electrification is nearing completion. This is a misrepresentation of our objectives in this year's activity. We specifically state that the extending of electric service to farms is nearing completion, but we also state that we are entering the second phase of rural electrification, namely efficiently applying electric service to farm operations, and we all realize that this is a big undertaking. So Clyde Ellis is deliberately misrepresenting our objectives when he says that our advertising claims that rural electrification is nearing completion in 1951. We state that the second phase of rural electricity is in its infancy.

During the past 30 years I have been quite active in promoting and working for the extension of electric service to the farms of this nation. It seems to me that the best answer to the charges made by Clyde Ellis and his associates is a rather brief description of my activities in rural electrification.

My activities in promoting farm electrification received recognition in the December 1, 1923, issue of Electrical World, when they published my picture on a page immediately preceding Editorial Comment. Under the picture they wrote a description of my work in farm electrification. I quote in part:

> "Mr. Neff has been the Chairman of the Rural Electric Service Committee of the National Electric Light Association since its formation in 1921, and his voice and pen have done great service in giving to this movement the importance it has in recent years assumed."

A second quote:

> "The NELA Committee, under Mr. Neff's leadership, has taken a leading part in bringing together the electrical and agricultural industries in a common study of this problem, and the newly-organized joint Committee on the

Relation of Electricity to Agriculture is in large part a result of its efforts."

I was Chairman of the Rural Electric Service Committee of the NELA for the years 1922-1927, inclusive. An impartial reading of the annual reports of this committee for these years gives the definite impression that the committee was studying the problem of rural electrification with the specific idea of taking electric service to rural America, just as our industry had taken electric service to urban America.

One quotation from the report of this committee for the year 1926-27, after reporting on the progress that had been made during the previous 4 years, is as follows:

> "If this increase continues at the same rate, there will be approximately 1,000,000 electrified farms in this country by the end of 1932, and by 1938 this number will be increased to approximately 3,000,000, which is nearly equal to one-half of the total farms in this country."

If it had not been for the big depression beginning in 1929, I am sure the above forecast would have been realized, as the utility companies were getting organized to go after farm electrification in a big way.

These committee reports urged electric utility companies to set up rural service departments headed by men trained in agriculture. The 1926-27 report shows that 57 utility companies in the United States had set up definite rural service departments and that 43 others had employed men trained in agriculture to work on rural electrification although they had not as of that date set up separate rural departments. Companies were urged to set up rural extension policies by which the company financed the cost of the rural line, as the farmer would need his cash to finance wiring and the purchase of appliances and equipment. The committee urged cooperation between the utility industry and the agricultural industry and took definite steps to set up such a cooperative effort. It was responsible for the creation of the Committee on the Relation of Electricity to Agriculture, which promoted and guided a tremendous amount of research work in the agricultural colleges and experiment stations of this nation. The contributions made by this research have made present-day rural electrification practical and feasible. If anyone will read the annual reports of the Rural Electric Service Committee and the reports and News Letters of C.R.E.A., they can reach only one conclusion, and that is that the utility industry of this country was laying a firm foundation for farm electrification in the United States, carrying on extensive research work to guide that development in a proper direction, to carry it out in a most efficient manner, and to avoid costly mistakes.

During the '20s I made a great many talks before various groups and discussed farm electrification. Complete copies of these talks fill several large volumes in my files, and I will quote from just a few of them.

In my report for the Rural Electric Service Committee for 1926 at the Atlantic City convention of the National Electric Light Association, I stated:

"The electrical industry is now confronted with the responsibility of extending service into rural districts to supply the farmers. In the same way that this industry met and solved the many problems presented in the development of city and village business, it is now turning its attention to the solution of the problems connected with extension of service into rural territory. Just as sure as the electrical industry has established electric service in the urban districts will it carry this service to the rural districts. It took a number of years to bring about the remarkable service established in cities and villages. It will take some time to perfect and extend the service to the farmers."

On May 22, 1928, I talked before a meeting of the utilities of Indiana at Indianapolis. I quote:

"Farm electrification offers to many utility companies the greatest single opportunity to increase their business. It offers to the farmers the comforts and conveniences that public utilities now supply to the city home, and, in addition, it makes available to them a new form of power which, if properly used, will materially increase the efficiency of the operation of the farm and likewise increase the profits. Surely a development which will do these things cannot be stopped and should be fostered. Many utility companies of this country have made the decision to carry electricity to the farmers in their territories as rapidly as possible. They have organized separate rural service departments and are expanding these departments rapidly so as to properly take care of the development. My plea to the utilities of Indiana is that you so organize your companies that you can give farm electrification the attention it deserves."

On June 21, 1928, I talked before the American Society of Agricultural Engineers. I quote:

"A survey in 1923 showed 225,000 farmers receiving central station service in the United States. Surveys of certain sections of this country indicate that about one-half million farmers are now receiving 24-hour electric service. This indicates that farm electrification is developing very rapidly. You can be assured that with your constructive help and cooperation and that of other interested organizations, the utility companies of this country will do whatever is necessary to extend 24-hour electric service to the farms of this country just as they have already supplied it to the widely-scattered villages and hamlets."

On September 18, 1929, I made a talk in Springfield, Illinois, before a farm meeting. I quote:

"Certainly under these conditions it will not be long before all the farmers, not only in the state of Illinois but in the entire United States, who live in reasonably

well-settled territory may enjoy the benefits of electric service."

This statement was made 6 years before REA was organized, and certainly we were not thinking about electrification being finished when 10% of the farms had electric service.

During September 26-28, 1929, the 9th Annual Meeting of the Great Lakes Division of the NELA was held at French Lick, Indiana. I was president of the geographic division that year, and I quote from the President's Address:

> "Utility companies of this division are giving more and more attention to the problem of extending electric service to the farmers in this territory. Many of them have created well-organized and carefully-planned rural service departments, whose sole function is to carry out this phase of utility work, and have adopted progressive extension and rate policies resulting in the addition of large numbers of customers. The effects of such effort can be best illustrated by a few statistics. At the end of 1923, a total of 15,884 farms enjoyed public utility electric service in the 4 states of this division. This number had been increased to 61,832 by the end of 1928, and while no definite information is available on the number of farms now being supplied with electric service, the best approximation is that at the present time 90,000 farms in this division are connected to the lines of public utility companies. The development of this phase of the utility business is progressing at such a rapid rate that within a few years all the farmers who live in reasonably well-settled districts and who want electric service will be supplied with it."

The quotations given above were repeated over and over, sometimes in slightly different form, in the many talks I gave throughout the United States, every one of which assumed that our industry was tackling the problem of rural electrification with the idea of making electricity available in the country just as we had made it available to cities and villages.

In some of these talks I pointed out that rural electrification on a national scale could not be started until 24-hour electric service in adequate amounts was available at each urban settlement so that the farm lines which would radiate out from these urban settlements could properly be supplied. I further pointed out that the cost of manufacturing and delivering electric energy to these urban communities had to be low enough so the cost of service delivered from such communities to the farmers would fit into the farmers' economy. These two conditions were not met until about 1920. It is, therefore, apparent to anyone who studies the development of electric service in this country that farm electrification on a national scale was not feasible prior to about 1920. Our national association became interested in farm electrification in 1921, and our industry has been actively pushing farm electrification since that date.

Beginning in the fall of 1929 and extending into the middle '30s, we experienced the worst depression in our national history. This temporarily stopped the program of carrying service to the farmers which our industry had so well-started, and it was not until we began to emerge from this depression that the utilities again took up their farm electrification programs where they had dropped them in 1929 and 1930.

On October 19, 1934, I talked before a Rural Electrification Conference at Purdue University. I quote:

> "We have only started on rural electrification. If all interested groups will continue to cooperate in the future as they have in the past, then there is no question but what our rural areas will in the near future be as completely electrified as our urban communities now are. Let us here resolve that we will do everything we can to bring representations of each interested group into one organized working unit to do some straight hard thinking on the problems ahead of us, and then, with our feet firmly on the ground at all times, let's go ahead and finish the job which has been started so well."

This quotation, from a talk made shortly before Congress gave President Roosevelt $100,000,000 for financing farm lines to take electric service to farmers who did not have such service, shows what I was thinking about farm development near the end of the year 1934. I believe that my thinking was, in general, that of the industry at that time.

In 1935 President Roosevelt appointed Mr. Morris L. Cooke as the Administrator to see that the $100,000,000 of funds appropriated by Congress was used to build farm electric lines. Our industry appointed a committee of utility executives to meet with Mr. Cooke and discuss with him how this money could best be spent. Mr. Freeman of the Columbia Gas and Electric Company was chairman of this committee; I was a member. We had several meetings with Mr. Cooke and his people, and our industry offered in writing to borrow the entire $100,000,000 from the government and immediately use it to finance the building of farm lines in the United States. Mr. Cooke appeared to us to be favorably inclined to our proposition, as it offered the surest and quickest way of getting the money spent, as most utility companies had made plans for the building of lengthy rural lines and were in a position to start the work immediately. However, someone must have changed Mr. Cooke's mind, for he never accepted our offer.

Our industry wrote a rather lengthy letter to Mr. Cooke, in which it was stated we would immediately spend the entire amount of $100,000,000 appropriated by Congress. It is from this letter that Mr. Ellis has lifted a sentence which he uses over and over again to prove that I, in particular, and our industry in general, had thought rural electrification was about completed. I did not write the letter personally, but I call your attention to one phrase in the quotation used by Mr. Ellis. Here is the sentence he uses, and it is on page 7 of the letter: "As a result, there are very few farms requiring electricity for major farm operation that are not now served." I call your attention to the phrase "requiring electricity for major farm operation." Inasmuch as I did not write

the letter, I cannot say for sure just what was meant, but I am quite sure that it referred to the irrigation areas of the west, and there a fairly good job had been done in extending service to the farms of that area. Unless this phrase means something like my explanation of it, the whole sentence quoted by Mr. Ellis is out of tune with the entire letter from which it is lifted. For this letter was an application on the part of the utility companies for $100,000,000 of government money to be used by them to build farm lines.

The proponents of public power have had to search through masses of records in order to find anything that they can in any way hang on me that would indicate that I have had a short-sighted policy on rural electrification. There are hundreds of talks and records made by me which indicate that from 1920 to date I talked and wrote articles promoting the extension of electric service to the farms of this nation to the same extent electric service had been brought to urban America.

To lift a single sentence out of a 7-page letter and give it a meaning that was never intended, a meaning in conflict with the letter from which it was lifted and in conflict with a thousand pages of NELA reports, letters, speeches, and articles written by me, is in my opinion a deliberate and intentional act to cover up the facts and put on a smear, not only on me but also on our industry, to promote public power and socialize our industry.

I am attaching a copy of the letter which the industry committee wrote to Mr. Cooke, in the event you have not had an opportunity to see this much-publicized letter.

Very truly yours,

Grover C. Neff
President

GCN:EFS
Enc.
CC-Col.H.S.Bennion
Steering Committee
Members

THE MAYFLOWER
Washington, D.C.

July 24, 1935.

Mr. Morris L. Cooke
Administrator, Rural Electrification Administration,
2000 Massachusetts Avenue,
Washington, D.C.

Dear Sir:

Pursuant to your request of May 20, 1935, to the utility executives with whom you conferred on that date, a national survey has been made by the undersigned committee to ascertain the approximate extent to which further development of rural electrification may be effected promptly in cooperation with the Rural Electrification Administration. From the results of this survey, we herein suggest a program for 1935-1936 amounting to $238,249,000, to serve and equip a total of 351,000 rural prospects, of which number, 247,000 are farms.

Basis of Program

1. This proposed increase in farm customers, equal to 32% of the farms now served by the privately-owned utilities, is possible of attainment only through the mutual cooperation of the REA and the privately-owned companies on the following premises:

a. That the utilities consider the immediate urge for rural electrification as a social rather than an economic problem, and undertake to "carry" the increased rural business outlined in this memorandum over the necessary long development period.

b. That the federal government extend credit to the new customers on a basis that will permit them to purchase the necessary equipment to use electric energy to an extent that will make the building of new lines possible, and advance funds to the privately-owned utilities to cover the cost of the rural lines and service facilities.

2. That the problem of the farmer is not one of rates, but of financing the wiring and purchase of appliances, is indicated by his necessary expenditures of $354 for these facilities, an amount equal to an average of at least seven times the annual bill for farm electric service. Thus, sacrifices in the nature of losses in return on investment incurred by the privately-owned utilities in carrying out the proposed program, will be to no avail unless the terms of payment and the interest rate offered to the prospective new customers for wiring and the purchase of household electric appliances and farm equipment are on a more liberal basis than heretofore available. An opportunity will thus be presented to several hundred thousand rural homes to obtain electric service that would otherwise be impossible until the present income of this group is greatly increased.

Prospective Customers

3. The program herein presented represents one that can be characterized as distinctly rural, as indicated by the predominant number of prospective farm to non-farm customers - 247,000 to 104,000, respectively. Many of the normal 1935 rural extensions financed by private capital, where the number of non-farms exceed those of farms, are either completed or started. Projects already undertaken are not included in the program submitted, which in the main comprehends extensions that would not normally be built in 1935.

Details of prospective customers follow:

	Customers	No. Per Mile
New Lines:		
Farms	206,000	2.6
Non-Farm.	79,000	1.0
TOTAL - NEW LINES.	285,000	3.6
Present Lines:		
Farms	41,000	
Non-Farm.	25,000	
TOTAL - PRESENT LINES	66,000	
Total Farms	247,000	
Total Non-Farms	104,000	
TOTAL NEW CUSTOMERS.	351,000	

4. It has been necessary to obtain the data for the estimates submitted, in the face of very indefinite terms for financing line construction, wiring, and the purchase of appliances. This condition may have had an adverse influence upon the size of the estimated program. It is quite possible that the estimate given can be increased provided a suitable plan of financing is consummated by the REA, the operating companies, and the prospective customers.

5. The construction cost figures given are predicated upon volume building of lines and not piecemeal construction. By volume building is meant not so much long extensions, as the total extensions shown in the estimates of the individual companies. To permit economic planning, and the purchase and distribution of material and labor, all projects for a given company should be passed upon at one time.

Cost of Construction

6. The estimated construction cost to the operating companies is based upon low cost lines consistent with continuity of service. Cost of additional transmission and tie lines, and substations necessary for the new extensions, is not included in the estimate.

7. The estimated average cost per mile of new line is $1,356, including meters, transformers and services for 3.6 customers per mile. As time was of the essence in formulating our survey, it was impossible to contact every operating company. It is, therefore, quite possible that the average cost of $1,356 for a density of 3.6 customers per mile, may be somewhat reduced when all of the companies not contacted

are included.

8. Cost of line construction and service facilities, follows:

Estimated Expenditures

Operating Companies

78,180 miles of new lines	$ 75,320,000
351,000 service facilities (meters, transformers and services) for new and present lines	38,365,000
TOTAL FOR OPERATING COMPANIES.....	$113,685,000

Customers

House wiring (351,000 customers)	$ 41,295,000
Service extensions, to be paid for by customers	3,851,000
Electrical appliances	79,418,000
TOTAL FOR CUSTOMERS.....	$124,564,000
GRAND TOTAL	$238,249,000

9. The foregoing calculations represent national averages only. Actual costs for individual projects will vary greatly; the unit cost of one line or service facility may be as much as three times that of another, depending upon density of customers, size of customer installation, and type of construction required for natural or local conditions.

Liquidation of Loans

10. Probably no program submitted for expenditures under the Work Relief plan has more probability of liquidation of the government loans than the one herein submitted. About one-half of the allotments advanced would be assumed by the operating companies; the balance would be assumed by several hundred thousand farm and rural residents.

Employment

11. This program conforms in full with the seven principles for re-employment outlined by the President in his last annual message to the Congress;

(1) Permanent and beneficial.
(2) Will not adversely affect present private employment
(3) Thirty-three per cent of total cost will be for direct labor.
(4) Loans are self-liquidating.
(5) Not competitive with private industry.
(6) Work planned principally for Federal fiscal year.
(7) Projects located in forty thousand communities.

12. Our program will reduce unemployment, improve working conditions of present employees, and have a definite effect on national recovery.

13. An equitable distribution of work will result from the large number of individual projects, estimated at 40,000, located in several thousand distribution centers over the entire country. Many of these projects can be started immediately, and the balance as quickly as the prospective customers are sold on the plan of governmental financing for the purchase of appliances and the wiring of buildings.

14. It is estimated that $78,315,000 of the $238,249,000 advanced to the operating companies and the new customers will be spent on direct labor. This amount, approximately 33 per cent of the total expenditures, represents 111,830,000 man-hours of work, at an average rate of seventy cents (70¢) per hour, on projects of a lasting and beneficial nature. This program will also require many thousand additional employees such as demonstrators, and field workers not included in our labor calculations.

Breakdown of Expenditures

Materials and overhead:	
Lines, meters, transformers, and services	$ 78,380,000
Service extensions	2,685,000
House wiring	23,273,000
Appliances	55,596,000
TOTAL	$159,934,000
Labor	
Lines, meters, transformers, and services	$ 35,305,000
Service extensions	1,166,000
House wiring	18,022,000
Appliances	23,822,000
TOTAL	$ 78,315,000

Rates

15. In an effort to promote rural electrification various types of rates have been adopted by individual operating companies. These types may be broadly classified as follows:

a. Those in which the energy cost is comparable with that in adjacent urban sections, but with a higher minimum or service charge to compensate for low density of customers; and

b. Those which offer a low guaranteed minimum, but with a higher cost of energy to compensate for low density of customers.

16. Rates are controlled by state and local regulatory agencies. Therefore, to immediately attempt to standardize rural rate schedules nationally would necessitate the revision of rates for about 3,000,000 consumers under numerous jurisdictions. The difficulties which would arise would be such that the program would be delayed indefinitely. Most operating companies are constantly adjusting their rural rates to promote a more general extension and greater use of

electric service. At the present time rural customers are the most favored class of customers, to which electric service is furnished.

Conclusion

17. The foregoing estimates are predicated upon the understanding that:

a. One hundred million dollars is to be made available to the electric industry for extending the facilities for electric service in rural districts;

b. Through the REA and/or other Federal agencies, the prospective rural customers on present lines and new lines will be financed for any service extensions to be provided by the customer, for the wiring of premises and for the purchase of appliances and appurtenances;

c. The REA and other Federal agencies in cooperation with the electric industry will conduct a national educational campaign on the advantages of electric service to rural inhabitants.

18. In cooperation with the REA we believe the privately-owned utilities can absorb the full $100,000,000 available under the Work Relief Appropriation for construction of additional rural facilities. The program can be started as soon as funds are available and pursued as rapidly as the prospects are sold on the government's financing plan.

19. We suggest the following plan for financing:

a. Money to be furnished to the utilities at specially low interest rates on long term payment. Loans to be repaid (except that advanced payments may be made in whole or in part from time to time), in accordance with either of the following plans as the individual company may select, the loans and repayments to be subject to terms and conditions to be mutually agreed upon:

a-1. Amortize the debt over a period of twenty-five years, or

a-2. By annual payments of 20 per cent of the revenue collected from the new rural customers these payments to include the interest charges.

b. Money advanced to the individual companies should be made on a mutually agreed upon unit cost per mile of line, based upon density and type of customers, local physical conditions and type of line required.

c. Money advanced to the customers for wiring and appliances should be at a low rate of interest. Time allowed for payment should extend over the estimated life of the appliances - a minimum of seven years.

20. In consideration of the Rural Electrification Administration and other governmental agencies advancing the required funds to the operating companies for the financing of the lines, meters, transformers, normal service wires and other facilities, and to the customers for financing service extensions and their payments for wiring and appliances, the privately-owned utilities could, subject to the state and local regulatory authorities:

a. Start construction of new lines as quickly as it is possible to sign the prospective customers on the basis of the aid extended to them by governmental agencies.

b. Where mutually desirable, the companies will assist the prospective customer in the selection and purchase of appliances and wiring from established dealers, and in making the necessary financial arrangements with the agencies established for this purpose;

c. Additional employees required shall, wherever possible, be taken from relief rolls, giving preference to former employees now on relief.

21. Our committee has been instrumental in submitting to you several formal applications from power companies for approval of certain rural line extensions contingent upon the advancing of funds by the government, upon terms and conditions to be agreed upon.

22. We understand that discussion of definite terms and conditions will be involved in your early consideration of these applications, and that we will thereafter be in a position to advise companies generally as to terms and conditions which may be regarded as broad standards covering approved rural line extensions.

23. Our committee has set up an organization of trained technicians, thoroughly familiar with all phases of rural electrification, to cooperate at all times with the REA. Through this committee full information regarding the proposed projects, such as amounts to be expended, the progress made, and the number of employees involved, will be promptly transmitted to the government agencies. Conversely, the information from REA will be transmitted promptly to the operating companies.

The problem of actively promoting rural electrification has received serious consideration of utility companies for many years. They have maintained many thousands of rural representatives in the field, promoting the use of electricity. They have generally contributed to the farm schools and agricultural colleges, for the expense

involved in extensive research work to determine new uses for electricity for farm operations. As a result, there are very few farms requiring electricity for major farm operations that are not now served. Additional rural customers must largely be those who use electricity for house-hold purposes and where the total use should bear a fair relationship to the cost of extending and furnishing the service.

The inherent difficulties in the economics of the problem have been discussed at length with you and your staff during the past nine months. It seems unnecessary to lengthen this communication by repetition of such difficulties or re-statement of the financial risks already assumed by companies generally in such development work.

We believe that the Rural Electrification Administration can provide new ways and means for performing an outstanding job of rural electrification during the coming year. It is in this belief that our committee herewith submits its definite suggestions to you and tenders its further pledge of active cooperation.

Very truly yours,

CHAIRMAN.

RURAL ELECTRIFICATION COMMITTEE OF
PRIVATELY-OWNED UTILITIES:

Hudson W. Reed
William Chamberlain
Thomas W. Martin
H. F. Smiddy
Grover C. Neff
P. H. Powers
W. W. Freeman, Chairman.

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WHOLESALE COSTS OF ELECTRICITY
WISCONSIN REA CO-OPERATIVE ASSOCIATIONS
YEAR 1960
(From 1960 Annual Statistical Report - REA Borrowers)
U. S. DEPARTMENT OF AGRICULTURE

NO.	CO-OPERATIVE - NAME - LOCATION	CONSUMERS 12-31-60	K.W.H. PURCHASED	$ COST	¢ K.W.H.	SUPPLIER
14	- Oconto Oconto Falls	3,120	13,188,000	159,729	1.2111	Wisconsin-Michigan Power
16	- Head of Lakes Superior	2,220	9,194,400	95,652	1.0403	Superior Water, Lt. & Pr. Co.
19	- Chippewa Cornell	3,121	18,781,416	221,528	1.1795	Dairyland Power Coop
21	- Taylor Cornell	1,917	13,124,400	156,691	1.1939	ditto
25	- Oakdale Oakdale	4,323	34,153,210	363,478	1.0643	ditto
27	- Buffalo Alma	2,270	20,627,866	243,834	1.1821	ditto
29	- Clark Greenwood	4,916	36,446,736	466,033	1.2787	ditto
31	- Columbus Columbus	1,846	15,188,340	206,680	1.3608	(City of Columbus (Wisconsin Power & Light Co.
32	- Pierce-Pepin Ellsworth	2,976	36,000,000	367,614	1.0212	Dairyland Power Coop
35	- Richland Richland Center	2,162	14,131,740	165,022	1.1677	ditto
37	- Trempealeau Arcadia	3,424	34,012,960	369,531	1.0864	ditto
38	- Rock Janesville	2,228	19,038,260	229,797	1.2070	Wisconsin Power & Light Co.
40	- Barron Barron	6,609	52,914,220	529,155	1.0000	Dairyland Power Coop
41	- Vernon Westby	4,786	42,526,440	472,329	1.1107	ditto
43	- Grant Lancaster	3,620	35,196,071	396,445	1.1264	ditto
46	- LaFayette Darlington	1,757	19,105,650	233,076	1.2199	ditto
47	- Jackson Black River Fls.	2,555	14,268,000	166,079	1.1640	ditto
49	- Dunn Menominee	3,624	28,235,880	336,380	1.1913	ditto
51	- St. Croix Baldwin	2,265	24,708,000	296,024	1.1981	ditto
52	- Crawford Gays Mills	1,804	10,926,816	130,478	1.1941	ditto
53	- Eau Claire Eau Claire	3,369	21,125,400	245,456	1.1619	ditto
54	- Polk Burnett Centuria	6,173	26,072,856	320,720	1.2301	ditto
55	- Adams-Marquette Friendship	4,313	18,468,600	213,961	1.1585	Wisconsin Power & Light Co.
57	- Jump River Ladysmith	3,078	13,431,360	165,755	1.2341	Dairyland Power Coop
58	- Price Phillips	3,448	10,957,200	149,617	1.3655	Lake Superior Dist. Power
60	- Waushara Wautoma	2,848	10,323,620	122,646	1.1880	Wisconsin Power & Light Co.

(continued on page 2)

CO-OPERATIVE NO. - NAME - LOCATION	CONSUMERS 12-31-60	K.W.H. PURCHASED	$ COST	¢ K.W.H.	SUPPLIER
63 - Bayfield Iron River	3,015	11,554,400	155,858	1.3489	Lake Superior Dist. Power
66 - Cent. Wisconsin Iola	2,096	10,888,800	136,653	1.2550	(Wis. Public Service Corp. (Wisconsin Power & Light Co.
TOTALS		614,590,641	7,116,221	1.1579	
3 COOPERATIVES SUPPLIED BY WISCONSIN POWER AND LIGHT COMPANY					
38 - Rock Janesville	2,228	19,038,260	229,797	1.2070	
55 - Adams-Marquette Friendship	4,313	18,468,600	213,961	1.1585	
60 - Waushara Wautoma	2,848	10,323,620	122,646	1.1880	
TOTALS		47,830,480	566,404	1.1842	
3 COMPARABLE COOPERATIVES SUPPLIED BY DAIRYLAND POWER COOP					
46 - LaFayette Darlington	1,757	19,105,650	233,076	1.2199	
27 - Buffalo Alma	2,270	20,627,866	243,834	1.1821	
52 - Crawford Gays Mills	1,804	10,926,816	130,478	1.1941	
TOTALS		50,660,332	607,388	1.1989	

JRF
11-1-61

CONSUMERS - INCORPORATED	CONSUMERS 12-31-61	K.W.H. PURCHASED	$ COST	¢ K.W.H.	SUPPLIER
Ashland					
Iron River	3,615	11,324,400	355,858	1.3459	Lake Superior Dist. Power
Iron Mountain					(Wis. Public Service Corp.
Niles	2,900	12,088,100	336,691	1.2550	(Wisconsin Power & Light Co.
TOTALS		614,320,041	7,112,251	1.1579	

I CITY-OWNED SYSTEMS BUY ELECTRIC POWER AND LIGHT ENERGY

Coldwater	2,252	19,038,240	320,720	1.6850
Sturgis-Montgomery				
Elsworth	4,313	16,448,530	214,301	1.3035
Hillsdale				
Marshall	2,848	10,375,120	122,842	1.1840
TOTALS		47,860,890	562,863	1.1761

I COOPERATIVE CONSUMERS SUPPLIED BY NATIONAL RURAL COOP

Alpena	1,707	18,108,000	213,075	1.2109
Dowagiac				
Tri-City	2,272	19,827,800	243,834	1.1621
Cooperative				
Sugar Belle	1,304	10,000,016	130,478	1.1941
TOTALS		50,835,816	607,388	1.1949

JFC
11-1-62

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NORTHERN STATES POWER COMPANY

EAU CLAIRE, WISCONSIN

OFFICE OF THE
PRESIDENT

REA

December 12, 1961

Mr. Grover C. Neff, Chairman
Board of Directors
Wisconsin Power and Light Company
Madison, Wisconsin

Dear Grover:

You may recall that Mr. Joseph H. Schreier, our Rural Manager, wrote Norman Clapp early in November with regard to the statements made by Mr. Clapp before the NRECA regional meetings to the effect that "the power companies were not interested" in rural extensions during the early years of the REA. Mr. Schreier quoted your 1960 address before the Agricultural Editors and I believe sent you a copy of his letter to Mr. Clapp.

Mr. Schreier has just shown me his response from Mr. Clapp. I attach a copy of Mr. Clapp's response and his enclosure. The response quotes in part your testimony before the Hinshaw Committee and endeavors to discredit the assertion that Mr. Cooke refused to cooperate with you in your application for a REA loan. In view of the rather extensive use which this Company and others are making of the two EEI publications which reprint your talk, I am anxious for you to review the enclosed copy of Mr. Clapp's letter and to give us the benefit of your comments.

Since Mr. Vennard has made a wide distribution of the text of Mr. Clapp's remarks before the NRECA regional meetings, I am sending Mr. Vennard a copy of this letter with enclosures.

With best holiday wishes to you and Mrs. Neff, I remain

Sincerely yours,

Stuart V. Willson

President

Stuart V. Willson
Attach.
cc: Mr. Edwin Vennard
Mr. A. S. King
Mr. Carl Forsberg

NSP

NORTHERN STATES POWER COMPANY

EAU CLAIRE, WISCONSIN

OFFICE OF THE
PRESIDENT

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Stuart W. Wilson
President

Stuart V. Wilson
Attach.
cc: Mr. Edwin Vennard
Mr. A. S. King
Mr. Carl Forsbery

(COPY)

1518 Birney Street
Eau Claire, Wisconsin
November 7, 1961

Mr. Norman Clapp, Administrator
Rural Electrification
United States Department of Agriculture
Washington, D. C.

Dear Sir:

I enjoyed meeting and talking with you several weeks ago in Minneapolis, Minnesota.

Several days ago, I happened to see a copy of the speech you delivered before the 1961 regional meetings of the National Rural Electric Co-operative Association. I read this copy with interest but frankly I am confused. You stated in your speech as follows: "The entire first year of the REA program was a year during which the Administrator, Morris Cooke, carried on fruitless negotiations with the electric industry. Administrator Cooke sought a basis upon which the industry would accept the challenge laid down by the Congress that the power companies broaden their vision and get out and provide the area coverage service that people in rural areas were entitled to have. But the power companies were not interested. Their spokesmen said they were already serving as much of the rural areas as they could afford to serve."

"Looking Ahead in Farm Electrification" was an address given by Grover C. Neff, Chairman of the Board of the Wisconsin Power and Light Company before the American Agricultural Editors Association Convention, Memphis, Tennessee, June 28, 1960. The following is an excerpt from his speech: "Since Wisconsin Power and Light Company had built and was operating about 3,000 miles of farm electric lines and had many more miles of farm line in the blueprint stage, I went to Washington and met with Mr. Cooke and his staff. I applied for a loan for my Company of approximately one quarter of a million dollars, to finance the farm electric lines shown on blueprints I had with me. Mr. Cooke was told that this application would be followed with one for three quarters of a million dollars as soon as additional blueprints could be put in order. After numerous delays and excuses, the request for loans was refused."

I am sure Mr. Neff did exactly as he stated in his speech. I am sending a copy of this letter to him so he will know that I am writing to you.

(COPY)

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Eau Claire, Wisconsin
November 7, 1981

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Rural Electrification
United States Department of Agriculture
Washington, D. C.

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I would appreciate a more complete explanation of your statement regarding requests for REA loans to investor owned utilities and a verification or denial of the statement made by Grover C. Neff regarding the application for loan made by him for his Company.

An early reply will be appreciated.

Very truly yours,

(S) Joseph H. Schreier

Joseph H. Schreier

cc: Mr. Grover C. Neff

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(S) Joseph H. Schreier

Joseph H. Schreier

cc: Mr. Grover C. Neff

UNITED STATES DEPARTMENT OF AGRICULTURE
RURAL ELECTRIFICATION ADMINISTRATION
WASHINGTON 25, D. C.

NOV 2 2 1961

Mr. Joseph H. Schreier
1518 Birney Street
Eau Claire, Wisconsin

Dear Mr. Schreier:

We are pleased to be able to shed some light on the remarks of Mr. Grover C. Neff regarding an REA loan application, which you quoted in your letter to us of November 7, 1961. Our records reveal that this agency did receive a formal application for an REA loan from Wisconsin Power and Light Company in 1935, but this loan was not "refused." The loan was approved by REA on October 1, 1935, in the amount of $258,600. On December 4, 1935, the loan was rescinded, and an REA memorandum dated December 17, 1935, states as the reason for rescission: "Withdrawn by applicant."

We believe that Mr. Neff may have forgotten some of the details of the actions which took place in 1935. He has admitted as much in testimony before a Congressional subcommittee. We quote from the published record of a hearing on rural electrification planning before a subcommittee of the Committee on Interstate and Foreign Commerce, House of Representatives, on October 17, 1945. Mr. Neff was testifying as president of Wisconsin Power and Light Company, and he was being questioned by Congressman Carl Hinshaw of California:

> Mr. Hinshaw: I would like to ask a question raised by the testimony of Mr. Neal, and the formal statement submitted following his testimony, on page 82 of the hearings in June, in which he says that private companies were reluctant to take advantage of the lending facilities created under the act, and even in 1936 it was clear that rural consumers organized by their own efforts into cooperatives would be the chief applicants for loan funds. The point made by the REA when it was before us giving testimony was to the effect that there were -- if my memory serves me -- a half dozen, approximately, private companies who had taken advantage of the opportunity to borrow money for rural extensions through the REA. Is that correct? And if it is correct, why?

Growth Through Agricultural Progress

Mr. Neff: Well, very little money was loaned by REA to any private companies. Of my own knowledge, I don't know of any.

Mr. Hinshaw: What is the reason for that? Did the companies not make applications or did the REA refuse to grant them?

Mr. Neff: Probably a little of both. Personally I had an experience in 1936 -- it may have been in 1937 -- when Mr. Cook was head of the REA. I had a number of different extensions that I wanted to make, and I had them all under blueprint. I came down to REA when they were on Massachusetts Avenue, had a very nice meeting with Mr. Cook and Mr. Nicholson, laid my plans on the table and told them I wanted to borrow some money to build them. They were very nice to me, we discussed it; they thought it was a good lay-out, it was satisfactory, but finally I was told that unless I reduced my retail rates I couldn't have the money. My answer to that was that the rates for service in Wisconsin were set by the Wisconsin Public Service Commission. I had no authority to make any change in rates; they were the rate-making body of the State, and I couldn't accept a loan under those conditions, and after discussing it for about a half hour, I left.

Mr. Hall: Have you anything in writing with respect to that conversation?

Mr. Neff: I was there.

Mr. Hall: I know, but did they turn you down formally, in writing?

Mr. Neff: That has been some time ago; I am not sure.

You will note that Mr. Neff states that he did not know of any REA loans to power companies. Actually, REA has approved electrification loans to 24 power companies in the amount of $20,019,999. These include such firms as Florida Power Corporation, Georgia Power and Light Company, and Central Iowa Power Company, which received REA loans in 1935.

It is unfortunate that no record exists of the conversations between Mr. Cooke and Mr. Neff in 1935, but we do not doubt that the question of high retail rates was discussed, as Mr. Neff recalls. Some solution must have been found, however, since REA did approve the loan.

The point that I sought to make in my series of NRECA addresses was that the commercial power industry in general turned its back on the REA loan program. In 1935, Mr. Cooke wanted the power companies to get started on the job of electrifying rural areas. He personally found it difficult to believe that any other type of organization could accomplish the task. But the response of the industry as a whole was luke-warm, to say the least. Mr. Cooke's disappointment became acute when he received an eleven-page letter dated July 24, 1935, from a rural electrification committee of privately-owned utilities. Mr. Neff was a member of this committee. Among other things, the committee refused to admit that a rate problem was involved in the question of farm electrification. It quoted a cost of building a mile of rural line -- $1,356 -- which turned out to be far in excess of the cost experienced a short time later by cooperatives. The line in the committee letter which Mr. Cooke found most discouraging, however, stated the opinion that "there are very few farms requiring electricity for major farm operations that are not now served." One should remember that only 10.9 percent of all farms in the United States were receiving central station electric service when that statement was made.

During those early years, REA was fortunate in having the services of an outstanding economist, Dr. H. S. Person, who wrote the enclosed paper on REA. We believe that his report on Mr. Cooke's experiences in 1935 may be of interest to you.

I am pleased that you took the time to write me and to express concern over the apparent differences between my report on REA's early days and Mr. Neff's. If you have any further questions, please do not hesitate to write us.

Sincerely yours,

Norman M. Caffey

Administrator

Enclosure

WISCONSIN Power AND Light COMPANY
INVESTOR OWNED
122 W. WASHINGTON AVE.
MADISON 1, WISCONSIN
SERVING THE HEART OF WISCONSIN

1190
REA

December 13, 1961

C O P Y

Mr. Norman Clapp, Administrator
Rural Electrification Administration
U.S. Department of Agriculture
Washington 25, D.C.

Dear Norman:

I want to express my sincere thanks to you for the arrangements made and the treatment given when calling at your office yesterday. It surely was a pleasurable experience.

In the morning, at 10:00 as per arrangements you had made, I met with Mr. Richard E. Wood and Mr. Ernst Moldenhauer. The report which I had prepared covering the Company's wholesale power supply to the five electric R.E.A. co-operatives in Wisconsin was gone over in detail. Both Mr. Wood and Mr. Moldenhauer expressed their thoughts that all was satisfactory as far as our company power supply, treatment of co-operatives, etc. was concerned. They seemed appreciative of getting the information contained in the report, a copy of which is attached for you.

As discussed with you in the afternoon, in addition to the report prepared on wholesale power, also enclosed is the booklet containing 60 one-page data sheets on Wisconsin communities. These one-page data sheets were so much in demand that we put them together in this form.

To try to further help communities in their efforts to secure new businesses, we are now publishing for them what we call Industrial Land sheets. Two of these are enclosed, one for Wautoma and one for Omro, which may be of interest to you in showing how we try to help the communities to help themselves. Also enclosed are copies of a Wisconsin highway map with a pink overlay showing the Company's operating area.

We are very appreciative of your consideration of our company and particularly appreciate your comments that as far as you know, everything is okay with Wisconsin Power and Light Company and the co-operatives we supply. If at any time anything comes up that would tend to mar our record or something that we can correct, we would be very appreciative if you would call it to our attention immediately. You know from past experience that we will do everything we can to correct bad situations.

Kindest personal regards and the best of the season's greetings to you and yours for a Merry Christmas and a Happy and Prosperous New Year.

Sincerely yours,

J. R. Frederick

J. R. Frederick
Director of
Industry Development

JRF:ES
Encs.

WPL 1266-B

WISCONSIN POWER AND LIGHT COMPANY
INVESTOR OWNED
122 W. WASHINGTON AVE.
MADISON 1, WISCONSIN

December 13, 1961

COPY

Mr. Norman Clapp, Administrator
Rural Electrification Administration
U.S. Department of Agriculture
Washington 25, D.C.

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19__ ?

TIME SCHEDULE - RIPON BROADCAST

1½ min.	12:35:00 - 12:36:30	- Announcer introduces Mr. Van Derzee.
3 min.	12:36:30 - 12:39:30	- Mr. Van Derzee interviews Mr. Frank Roberts
½ min.	12:39:30 - 12:40:00	- Announcer introduces Mr. Neff
5 min.	12:40:00 - 12:45:00	- Mr. Neff speaks
1 min.	12:45:00 - 12:46:00	- Announcer introduces Mr. Kohlhepp
5½ min.	12:46:00 - 12:51:30	- Mr. Kohlhepp interviews Mr. & Mrs. Leffel
½ min.	12:51:30 - 12:52:00	- Announcer introduces Mr. Hatch
3 min.	12:52:00 - 12:55:00	- Mr. Hatch speaks.
½ min.	12:55:00 - 12:55:30	- Announcer introduces Governor Rennebohm
3 min.	12:55:30 - 12:58:30	- Governor Rennebohm speaks.
½ min.	12:58:30 - 12:59:00	- Announcer makes closing remarks.

******

24 min.

$1\frac{1}{2}$ minutes - 12:35:00 - 12:36:30

Announcer:

Hello, everybody - this is your announcer Wes Blish speaking from the stage of the Ripon College Theatre where a large crowd is gathered to celebrate Farm Electrification Day - a day which commemorates several important milestones in the progress of relationships between business-managed electric companies and their rural customers. The memory-laden opening strains of "A Bicycle Built For Two" recall that "Gay Nineties" period when electric service was just beginning to "flex its muscles" and the stage was set for some enterprising farmer to do some real "trail-blazing" by being the first to experiment with this new "electric" servant. Such a man was Dr. David Roberts, Waukesha County farmer who - in 1898 - had the vision and courage and yes - the curiosity - to become the first customer of Wisconsin business-managed utilities to adapt electricity to the farm by securing power from the interurban trolley wire that linked Milwaukee with Waukesha. We had hoped to have Dr. Roberts with us today but unfortunately he is ill so we salute his enterprise and vision - and are happy to be able to present Mr. Frank Roberts - a nephew of Dr. Roberts - who will be interviewed by Mr. G. W. Van Derzee, president of Wisconsin Electric Power Company - to whose lines the Roberts farm was first connected. Mr. Van Derzee - - -

(Station music "A Bicycle Built For Two" at 12:35 - Announcer comes in at the end of 8 counts (approximately 10 seconds) music continues softly to complete fadeout at announcer's "The memory-laden opening strains of, etc.")

3 minutes 12:36:30 - 12:39:30

Mr. Van Derzee - Mr. Roberts

Van D: Mr. Roberts, it is a pleasure to have you here with us to celebrate a memorable milestone in the progress of rural electrification in Wisconsin. Your uncle, Dr. David Roberts, with whom you are associated, certainly started something 51 years ago -- as the first farm customer of the business-managed electric companies of Wisconsin.

Roberts: I'm sorry, Mr. Van Derzee, that my uncle is unable to be here on this occasion due to illness. I've often heard him tell about when our farm was first connected for electricity. It doesn't seem possible that it was more than a half-century ago. The neighbors looked on it as sort of a joke. But when they saw the electric lights, then about the only use for electricity, they could see it was a great improvement over the oil lamp for the house and the lantern for the barn. Little did folks realize, then, the scores of jobs electricity would come to do on the farm in later years.

Van D: Mr. Roberts, it's men with vision and courage like Dr. Roberts who have to be the pioneers in any development -- and I salute him as the original pioneer of farm electrification in Wisconsin. We, in the electric industry, too, like to think of ourselves as pioneers in rural electrification. Starting with your farm in 1898, we have pioneered rural line construction, developed new uses for electricity on the farm, engaged in extensive experimental work, established electricity as the farmers', low-cost competent, hired hand.

Roberts: Of course, my uncle's no longer on the farm today, Mr. Van Derzee, but many of our friends have electrified farms -- and it certainly is a far cry from that day in 1898 when the "juice" was turned on. We received service from the old interurban line, then owned by your company. During transportation rush hours, the old carbon filament lamps used to waver,

(continued)

Van D: Mr. Roberts, it is a pleasure to have you here with us to talk to a
generally interested in the problems of rural electrification in Vermont.
Your works, the Rural Cooperatives, with which you are associated, certainly
raised questions of great use -- as the first Vice President of the
Northeastern Electric Cooperative of Vermont.

Roberts: We were, Mr. Van Doren, that we could be weeks to be here as this
evening for telling. We often found that with about two-thirds
was first connected for electricity. It doesn't seem possible that it
was more than a half-century ago. The neighbors looked on it as some of
a joke. But when they saw the electric light, then about the only way
for electricity, they could see it was a great improvement over the oil
lamp for the house and the lantern for the barn. Little did we
realize, then, the amount of power electricity would soon be to do in the
farm in later years.

Van D: Mr. Roberts, this has with others and reminds like Mr. Roberts we have
to be the pioneers in our development -- and I wonder if in the subject
pioneer of farm electrification in Vermont. Mr. Roberts, in the old days
before, you, have to think of everything as pioneers in rural electri-
fication. Starting with plans from the NYPA, we have pioneered from
time to time. Perhaps you have been particularly on the farm.
Based on extensive experimental work, - a lot of time, especially on the
farmers', farmers particularly, hand tool.

Roberts: Of course, my study is as great as the farm study. I, Mr. Van Doren, was
one of the farmers from Cleveland Ohio -- and it certainly is a far
cry from that day in 1908 when the "Lamp" was lighted on the Cleveland
Square from the old 32 candle power lamp, then moved to our farmers. Certain
times, making such trips. The old method of measuring the power,

(continued)

Roberts: (cont'd) fade and come on again, but, nevertheless, we were glad to have this better and safer method of lighting our barns. Neighbors came in to see what electricity could do on the farm. It seems to me that a short time later we acquired a motor for the water pump and also put one on our milking machine.

Van D: Yes Mr. Roberts, we have come along way since then. Today we estimate there are about 100 uses for electricity on the farm -- most of them developed and pioneered by the business-managed electric companies. You will hear about this pioneering work from our next speaker. And, Mr. Roberts, I want to thank you again for being our guest here today. The chain of events in which Dr. Roberts was the first link, way back in 1898, has led to a great milestone which we are celebrating today. Thank you, again.

½ minute 12:39:30 - 12:40:00

Announcer:

Thank you Mr. Van Derzee and Mr. Roberts - and now - our Farm Electrification Day cermemonies would be incomplete indeed if we failed to recognize the wisdom and enterprising spirit of the pioneers who became leaders in the development of the Ripon Experimental Line - forerunner of the famous Wisconsin Electro-Test Farms. We have with us today - the president of Wisconsin Power and Light Company - Mr. Grover C. Neff - an outstanding leader in the progress of rural electrification in Wisconsin. Mr. Neff will tell us about these early experiments. Mr. Neff - -

5 minutes 12:40:00 - 12:45:00

Mr. Neff

Neff: In the early 1920's the electric operating companies of this country were establishing the greatest system of electric transmission line networks in the world. These lines carried electric power 24 hours a day from efficient and strategically-placed generating stations to practically every city and village. Then, and not until then, the foundation was laid for farm electrification on a state-wide and national scale.

Electric lines to serve farms naturally radiate from cities and villages; and such farm lines could not be efficiently and dependably energized until electric power in sufficient quantity was constantly and dependably made available. So the enormous investment made by the power and light companies in transmission networks formed the foundation on which rural electrification could be built.

The electric operating companies of Wisconsin 25 years ago realized that some experimental and research work would have to be done to put electric service to work on the farms of Wisconsin in the best possible way, and at the least cost and with the greatest practical benefit to the farmers. Accordingly, in 1924, the Wisconsin Power and Light Company decided to build an experimental electric line to 6 farmers living south of Ripon, four of whom are here today.

The Wisconsin Utilities Association and the University of Wisconsin entered into a contract whereby the University would conduct and supervise experiments with the farmers on this Ripon Experimental Line.

A great deal of information was collected by the University on the Ripon Experimental Line. It has been very valuable in guiding the development of new equipment, proper machinery, and proper methods. In order to permit as

Neff: many farmers as possible to see with their own eyes that the experiments proved electricity could be used profitably, the Ripon line experiments were duplicated on 15 other farms in the state. These farms were called Electro-Test farms. The University conducted and supervised the tests on these farms, too. All this experimentation has undoubtedly saved the farmers of Wisconsin many serious mistakes and a great deal of money. We in the utility business are much indebted to the University and to these farmers on the Ripon Experimental Line and the Electro-Test Farms for their cooperation in this pioneering rural electrification project.

Since 1924, many thousands of miles of farm line have been built in Wisconsin, and today more than 95% of Wisconsin farms have electric service available. More than 100,000 farms in the state are served by electric companies, more than 57,000 by cooperatives, and more than 8,000 by municipal utilities. This huge development really began in an organized way here on the Ripon Experimental Line, and today we are taking notice of the 25th birthday of organized farm electrification in Wisconsin.

The conduct of experiments on the Ripon Line was under the able direction of Professor F. W. Duffee of the College of Agriculture at the University. Professor Duffee has been a leader in developing applications of electricity on the farm for a quarter century. He drove all the way from Moline, Illinois, this morning to be on this program -- and tell us something of the changes electricity has brought.

Ladies and gentlemen, Professor Duffee.

F. W. Duffee

Duffee: It is difficult for us to recall the facts concerning the use of electricity on the farms of Wisconsin 25 years ago. I had to go over old records and reports dug out from dusty files to refresh my memory as to the exact situation a quarter of a century ago.

In 1924 only a few thousand Wisconsin farms were supplied with electricity, and these few thousand farmers used it mainly for lighting.

For example, I find from a survey made in 1923 that 62% used electric irons, 50% used electric washers, 37% used electricity for pumping water, and most of this was by means of pump jacks, and 19% operated milking machines with electric motors.

There were only a few other household and farm appliances reported for those days....and their use was extremely small.

I am told that 95% of the farms in Wisconsin now have electricity or have it available, and practically 100% of them have electric irons, washers and water pumps, and a very high percentage operate milking machines with electric motors.

Practically unknown on farms in 1924 were such things as refrigerators, freezers, vacuum cleaners, toasters, water heaters and electric ranges; uses that contribute to better farm living. These are now in rather general use.

Barn cleaners, silo unloaders, dairy water heaters, cow trainers and electric fence controllers hadn't even been thought of in 1924, but are used by thousands of farmers today to lighten farm work and make for better farming conditions.

(continued)

Duffee: The goal of 25 years ago was to find out how electric light, heat and power could best serve Wisconsin farm families.

We pay tribute to those 6 farm families on the Ripon Experimental Line and the 15 families on the Electro-Test Farms who cooperated in making the early studies possible.

The extensive use of electricity on farms today is the reward of this pioneering work begun here in 1924 and carried on continuously since that time.

1 minute 12:45:00 - 12:46:00

Announcer:

Thank you, Professor Duffee and Mr. Neff. Yes -- if it were not for the far-sighted wisdom of the folks who pioneered so well on the Ripon Experimental Line and the co-operation of farmers, University officials and others who took part in the Electro-Test Farm experiments, there may have been no occasion for us to meet here today at Ripon to celebrate Farm Electrification Day - marking the connection of the 100,000th farm to the electric lines of Wisconsin's business-managed utilities. I have with me at the microphone - Mr. C. E. Kohlhepp - president of Wisconsin Public Service Corporation - to whose Company falls the honor of making the 100,000th farm electric connection that we celebrate today. Mr. Kohlhepp will interview Mr. and Mrs. Leffel - Marathon County farmers - who recently made rural electrification history by becoming the 100,000th farm customer of Wisconsin's business-managed electric companies. Mr. Kohlhepp --

5½ minutes 12:46:00 - 12:51:30

Interview - Mr. Kohlhepp, Mr. & Mrs. Leffel -- 100,000th Farm Electrified

Mr. K: Mr. Leffel, we are happy to have you with us today and we appreciate your driving all the way down from Marathon County to be here. You must have gotten up pretty early this morning, Mr. Leffel, to get all your chores done and get off to Ripon.

Mr. L: Getting up early doesn't mean much to a farmer, Mr. Kohlhepp, and electric lights are handy when we get up on these dark mornings.

Mr. K: You probably know, Mr. Leffel, but I imagine it's news to some folks, that 94% of the farms in Marathon County, or 94 out of every 100, have electric service today and that more than 97% have an electric line passing by their farm. In some of our Wisconsin counties, 100% of the farmers have electric service. What puzzles me, Mr. Leffel, is why you waited so long to connect up to our lines.

Mr. L: Well, Mr. Kohlhepp, we might have had electric service before, but we just didn't have the money to pay for the wiring. Already 15 years ago there was a line within 3/4 of a mile of our place. Anyway, we are mighty glad to have service now.

Mr. K: The proof of the pudding seems to be that you are doing all right today, Mr. Leffel, so I can't argue with you -- and just as you are glad to have electricity now, we are glad to see you using it -- and you are a mighty important user, too. Now that you have electricity on your farm, Mr.Leffel, what are you doing with it?

Mrs.L: I would like to answer that question, Mr. Kohlhepp, because we are making the greatest first use of it in the house. We use it for lighting and radio, and I have a flat iron and washing machine, and we pump water for both the house and the barn with electricity. Even though we have been using it only a short time, I don't see how we ever managed to get along without it.

Mr. L: Electricity in the house will make work easier for my wife and she deserves help.

Mrs.L: Nice of you to say that, Herman.

(continued)

[illegible]

Mr. K: Thank you, Mr. and Mrs. Leffel. It certainly has been nice to have you with us, and now — we come to the really important part of this program. The farm of Mr. and Mrs. Herman J. Leffel on Route 4, Edgar, Wisconsin, is the 100,000th farm connected to the lines of the business-managed electric companies of the State of Wisconsin. The seed for this achievement was sown some 25 years ago with the Ripon Experimental Line and Electro-Test Farms as the foregoing speakers have explained to you. The connection of the 100,000th farm marks an important milestone in the program of business-managed electric companies to bring electricity to every farm in Wisconsin. Today we are very close to that goal. (Turning to Leffel) As the 100,000th farmer connected to the lines of the business-managed electric companies, Mr. Leffel, I want to present you with this certificate commemorating the event. I know that electricity will help you make a better living and that it will help you live better.

Before you leave, Mr. Leffel, I would like to introduce you to (name) one of the six pioneers on the Ripon Experimental Line. Mr. Leffel, this is Mr. ( ). I would also like to introduce (name) one of the 15 Electro-Test farmers. Introducing you to these typical pioneers is an historic occasion because, you, today, would not be the 100,000th farm to be connected to business-managed electric company lines if it had not been for the cooperation of these pioneer farmers in the development of applications of electricity on the farm. Neither would cooperatives be serving more than 57,000 farms, nor would municipally owned systems be serving some 8,000 farms if it were not for the spade work done a quarter of a century ago.

The electric companies are continuing their pioneering work. At the Electric Research Farm near Madison, electric companies in conjunction with the University are pioneering ways to reduce chore time and increase farm production. You are cordially invited to visit the Research Farm.

½ minute 12:51:30 - 12:52:00

Announcer:

You have just heard Mr. C. W. Kohlhepp, president of Wisconsin Public Service Corporation, pay tribute to Mr. and Mrs. Leffel, Marathon County farmers -- who recently became the 100,000th farm customer of Wisconsin's business-managed utilities. Another factor in the development of the use of electricity to lighten the burden of Wisconsin's farmers has been the activities of the Wisconsin Farm Bureau Federation. At this time, we have the pleasure of presenting Mr. Curtis Hatch, president of that organization.

3 minutes 12:52:00 - 12:55:00

Remarks of Curtis Hatch, President, Wisconsin Farm Bureau Federation, on radio program of Farm Electrification Day - Nov. 8 at Ripon, Wisconsin

Hatch: We of the Wisconsin Farm Bureau Federation take pride in participating in this historic celebration. We worked with electric companies and the University in pioneering farm electrification. Senator George W. Hull of Whitewater, who was president of the Wisconsin Farm Bureau Federation in the 1920's, represented our organization on the Wisconsin Committee on the Application of Electricity to Agriculture, which established the organized research work in 1924.

The early pioneering in rural electrification was in a sense, a gamble. It was a gamble in economical power transmission. It was a gamble in an unknown customer market. It was a great forward movement in which the city electrical merchant went out among rural people and learned much of the business of farming.

These pioneer electric companies not only learned how the farmer lived, but they showed him a much needed better way to live. They put new tools in his hands with which he could produce more efficiently and more economically a better quality product. Electricity shortened and made more pleasant his hours in the barn and gave him more time to work in the fields or relax in his home. It brought added enjoyment to rural family life.

The farmer's wife was not overlooked in this great transition. She came in for a large share of the benefits of better living through applying electrical services. Many of our farm homes have become as well equipped as those of our city cousins. The farm home has become a more attractive place in which to live.

(continued)

Hatch: Electric service before it was brought to our rural homes was thought of as a luxury by farm people. There was a feeling of uncertainty, almost a feeling of extravagance as the high line advanced in construction down the road. Farm people have always been eager to accept new ventures and once the light came on, a new era of farming had begun. Electrically drawn machines began to do much of the hard work formerly done by human hands. Gadgets new to farm folks became necessities. The pioneering appliances found so useful brought immediate demand for refinement and for expansion in applying electric service to other phases of farm living.

Today farming is dependent upon electric service in many, many ways. It is a vital part of our agricultural economy. From its start, 25 years ago, the service has reached into almost every phase of agricultural work. The development of electric service on the farm, as well as in the factories of our cities, has helped to make our nation the outstanding example of what men do when they have the will to help each other and to help themselves.

½ minute 12:55:00 - 12:55:30

Announcer:

Thank you, Mr. Hatch -- Yes -- it's Farm Electrification Day at Ripon where today we mark another milestone in the history of our grand old Badger State by celebrating the connection of the 100,000th farm customer to the electric lines of Wisconsin's business-managed utilities. As we near the end of our broadcast, it is very fitting that we hear now from the Honorable Oscar Rennebohm -- Governor of the great State of Wisconsin. Governor Rennebohm --

3 minutes 12:55:30 - 12:58:30

Governor Rennebohm

Gov: Everyone in Wisconsin should take pride in the rural electrification accomplishments in our state.

Wisconsin has become the Dairyland of our nation, largely because farmers and processors of dairy products have used electric service efficiently and abundantly. Electric operations in barns keep cows cleaner, healthier and more productive.

Electricity enables Wisconsin farmers to produce more milk and cheese than is produced in any other state. It has raised the standard of living of farmers and has given the farm family all the conveniences of city life.

Farm folk used more electricity than city residents. Official records of the Public Service Commission of Wisconsin show that the average annual use by rural customers during 1948 was 2,664 kilowatt-hours. This consumption is 854 kilowatt-hours more than was used by city residential customers.

As Governor of Wisconsin and as a farmer, I commend the various suppliers of electric service for their outstanding achievement in making electricity available to 97% of all the workable farms in the state. I hope we will soon celebrate the 100% saturation point.

I congratulate the business-managed electric companies, the electric cooperatives and the municipally-owned electric systems on their individual achievements. I hope they will work together as a team to aid farmers in making still more efficient and profitable use of electricity.

I commend particularly the business-managed companies for their leadership in pioneering farm electrification. Back there in the early 1920's, it had not been proved that farmers could use electricity profitably for the many tasks that are now profitably performed electrically instead of

(continued)

Gov: manually. Electric companies procured the aid of farmers on the Ripon Experimental Line, the fifteen Electro-Test farmers, the College of Agriculture of our University, the Wisconsin Farm Bureau Federation, the State Department of Agriculture, the Public Service Commission and equipment manufacturers in establishing the organized research program in 1924. This valuable experimental work - a basic achievement in fundamental research - sold electric companies and farmers that farm electrification would be mutually profitable and induced manufacturers to develop present-day electrical equipment.

I want to commend the electric co-operatives for their aggressive and successful promotion of farm electrification and for obtaining their rightful share of federal funds for Wisconsin use.

The entire achievement of the electric industry is another brilliant chapter of accomplishment under our free opportunity system.

½ minute 12:58:30 - 12:59:00

Announcer:

Thank you, Governor Rennebohm -- and so -- we bring to a close this Farm Electrification Day broadcast from the Ripon College Theatre -- where we are celebrating the 25th anniversary of the Ripon Experimental Line and the connection of the 100,000th farm to the lines of Wisconsin's business-managed electric companies. We salute Wisconsin's farmers and our wish for them in the days and years ahead is BETTER LIVING - BETTER FARMING - ELECTRICALLY!

(Station music "On Wisconsin" begins with announcer's words "And so we bring to a close, etc." Continues softly - coming up on BETTER LIVING - BETTER FARMING - ELECTRICALLY - to close.)

after 1940

COPY OF ADDRESSES AND INTERVIEWS

RECEIVED FOR
CELEBRATION OF CONNECTION OF 100,000th FARMER
TO LINES OF ELECTRIC COMPANIES AND COMMEMORATING
THE 25th ANNIVERSARY OF ESTABLISHMENT OF RIPON
EXPERIMENTAL RURAL LINE

RIPON COLLEGE THEATER

NOVEMBER 8, 1949

INTERVIEW BETWEEN DR. DAVID ROBERTS, WAUKESHA, OR HIS REPRESENTATIVE,
AND
G. W. VAN DERZEE, PRESIDENT, WISCONSIN ELECTRIC POWER CO., MILWAUKEE

Van D: Mr. Roberts, it is a pleasure to have you here with us to celebrate a memorable milestone in the progress of rural electrification in Wisconsin. Your uncle, Dr. David Roberts, with whom you are associated, certainly started something 51 years ago -- as the first farm customer of the business-managed electric companies of Wisconsin.

Roberts: I'm sorry, Mr. Van Derzee, that my uncle is unable to be here on this occasion due to illness. I've often heard him tell about when our farm was first connected for electricity. It doesn't seem possible that it was more than a half century ago. The neighbors looked on it as sort of a joke. But when they saw the electric lights, then about the only use for electricity, they could see it was a great improvement over the oil lamp for the house and the lantern for the barn; Little did folks realize, then, the scores of jobs electricity would come to do on the farm in later years.

Van D: Mr. Roberts, it's men with vision and courage like Dr. Roberts who have to be the pioneers in any development - and I salute him as the original pioneer of farm electrification in Wisconsin. We, in the electric industry, too, like to think of ourselves as pioneers in rural electrification. Starting with your farm in 1898, we have pioneered rural line construction, developed new uses for electricity on the farm, engaged in extensive experimental work, established electricity as the farmers' low-cost competent, hired hand.

Roberts: Of course, my uncle's no longer on the farm today, Mr. Van Derzee, but many of our friends have electrified farms -- and it certainly is a far cry from that day in 1898 when the "juice" was turned on. We received service from the old interurban line, then owned by your company. During transportation rush hours, the old carbon filament lamps used to waver, fade and come on again, but, nevertheless, we were glad to have this better and safer method of lighting our barns. Neighbors came in to see what electricity could do on the farm. It seems to me that a short time later we acquired a motor for the water pump and also put one on our milking machine.

Van D: Yes, Mr. Roberts, we have come a long way since then. Today we estimate there are about 100 uses for electricity on the farm -- most of them developed and pioneered by the business-managed electric companies. You will hear about this pioneering work from our next speaker. And, Mr. Roberts, I want to thank you again for being our guest here today. The chain of events in which Dr. Roberts was the first link, way back in 1898, has led to a great milestone which we are celebrating today. Thank you, again.

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Van D: Mr. Roberts, it's men with vision and courage like Dr. Roberts who have to be the pioneers in any development - and I salute him as the original pioneer of farm electrification in Wisconsin. We, in the electric industry, too, like to think of ourselves as pioneers in rural electrification. Starting with your farm in 1898, we have pioneered rural line construction, developed new uses for electricity on the farm, engaged in extensive experimental work, established electricity as the farmers' low-cost competent, hired hand.

Roberts: Of course, my uncle's no longer on the farm today, Mr. Van Derzee, but many of our friends have electrified farms -- and it certainly is a far cry from that day in 1898 when the "juice" was turned on. We received service from the old interurban line, then owned by your company. During transportation rush hours, the old carbon filament lamps used to waver, fade and come on again, but, nevertheless, we were glad to have this better and safer method of lighting our homes. Neighbors came in to see what electricity could do on the farm. It seems to me that a short time later we acquired a motor for the water pump and also put one on our milking machine.

Van D: Yes, Mr. Roberts, we have come a long way since then. Today we estimate there are about 100 uses for electricity on the farm -- most of them developed and pioneered by the business-managed electric companies. You will hear about this pioneering work from our next speaker. And, Mr. Roberts, I want to thank you again for being our guest here today. The chain of events in which Dr. Roberts was the first link, way back in 1898, has led to a great milestone which we are celebrating today. Thank you, again.

GROVER C. NEFF, PRESIDENT, WISCONSIN POWER AND LIGHT COMPANY, MADISON, WISCONSIN

Neff: In the early 1920's the electric operating companies of this country were establishing the greatest system of electric transmission line networks in the world. These lines carried electric power 24 hours a day from efficient and strategically-placed generating stations to practically every city and village. Then, and not until then, the foundation was laid for farm electrification on a state-wide and national scale.

Electric lines to serve farms naturally radiate from cities and villages; and such farm lines could not be efficiently and dependably energized until electric power in sufficient quantity was constantly and dependably made available. So the enormous investment made by the power and light companies in transmission networks formed the foundation on which rural electrification could be built.

The electric operating companies of Wisconsin 25 years ago realized that some experimental and research work would have to be done to put electric service to work on the farms of Wisconsin in the best possible way, and at the least cost and with the greatest practical benefit to the farmers. Accordingly, in 1924, the Wisconsin Power and Light Company decided to build an experimental electric line to 6 farmers living south of Ripon, four of whom are here today.

The Wisconsin Utilities Association and the University of Wisconsin entered into a contract whereby the University would conduct and supervise experiments with the farmers on this Ripon Experimental Line.

A great deal of information was collected by the University on the Ripon Experimental Line. It has been very valuable in guiding the development of new equipment, proper machinery, and proper methods. In order to permit as many farmers as possible to see with their own eyes that the experiments proved electricity could be used profitably, the Ripon line experiments were duplicated on 15 other farms in the state. These farms were called Electro-Test farms. The University conducted and supervised the tests on these farms, too. All this experimentation has undoubtedly saved the farmers of Wisconsin many serious mistakes and a great deal of money. We in the utility business are much indebted to the University and to these farmers on the Ripon Experimental Line and the Electro-Test Farms for their cooperation in this pioneering rural electrification project.

Since 1924, many thousands of miles of farm line have been built in Wisconsin, and today more than 95% of Wisconsin farms have electric service available. More than 100,000 farms in the state are served by electric companies, more than 57,000 by cooperatives, and more than 8,000 by municipal utilities. This huge development really began in an organized way here on the Ripon Experimental Line, and today we are taking notice of the 25th birthday of organized farm electrification in Wisconsin.

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Neff: The conduct of experiments on the Ripon Line was under the able direction of Professor F. W. Duffee of the College of Agriculture at the University. Professor Duffee has been a leader in developing applications of electricity on the farm for a quarter century. He drove all the way from Moline, Illinois, this morning to be on this program -- and tell us something of the changes electricity has brought.

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PROFESSOR F. W. DUFFEE, CHAIRMAN,
DEPARTMENT OF AGRICULTURAL ENGINEERING
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Duffee: It is difficult for us to recall the facts concerning the use of electricity on the farms of Wisconsin 25 years ago. I had to go over old records and reports dug out from dusty files to refresh my memory as to the exact situation a quarter of a century ago.

In 1924 only a few thousand Wisconsin farms were supplied with electricity, and these few thousand farmers used it mainly for lighting.

For example, I find from a survey made in 1923 that 62% used electric irons, 50% used electric washers, 37% used electricity for pumping water, and most of this was by means of pump jacks, and 19% operated milking machines with electric motors.

There were only a few other household and farm appliances reported for those days ... and their use was extremely small.

I am told that 95% of the farms in Wisconsin now have electricity or have it available, and practically 100% of them have electric irons, washers and water pumps, and a very high percentage operate milking machines with electric motors.

Practically unknown on farms in 1924 were such things as refrigerators, freezers, vacuum cleaners, toasters, water heaters, and electric ranges; uses that contribute to better farm living. These are now in rather general use.

Barn cleaners, silo unloaders, dairy water heaters, cow trainers and electric fence controlers hadn't even been thought of in 1924, but are used by thousands of farmers today to lighten farm work andmake for better farming conditions.

The goal of 25 years ago was to find out how electric light, heat and power could best serve Wisconsin farm families.

We pay tribute to those 6 farm families on the Ripon Experimental Line and the fifteen farm families on the Electro-Test farms who cooperated in making the early studies possible.

The extensive use of electricity on farms today is the reward of this pioneering work begun here in 1924 and carried on continuously since that time.

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INTERVIEW BETWEEN MR. AND MRS. HERMAN LEFFEL, EDGAR, MARATHON COUNTY, 100,000th CONNECTED FARM

CHARLES E. KOHLHEPP, MILWAUKEE, PRESIDENT, WIS. PUBLIC SERVICE CORP.

Mr. K; Mr. Leffel, we are happy to have you with us today and we appreciate your driving all the way down from Marathon County to be here. You must have gotten up pretty early this morning, Mr. Leffel, to get all your chores done and get off to Ripon.

Mr. L: Getting up early doesn't mean much to a farmer, Mr. Kohlhepp.

Mr. K: You probably know, Mr. Leffel, but I imagine it's news to some folks, that 94% of the farms in Marathon County, or 94 out of every 100, have electric service today and that more than 97% have an electric line passing by their farm. In some of our Wisconsin counties, 100% of the farmers have electric service. What puzzles me, Mr. Leffel, is why you waited so long to connect up to our lines.

Mr. L: Well, Mr. Kohlhepp, we might have had electric service before, but we just didn't have the money to pay for the wiring. Already 15 years ago there was a line within 3/4 of a mile of our place. Anyway, we are mighty glad to have service now.

Mr. K: The proof of the pudding seems to be that you are doing all right today, Mr. Leffel, so I can't argue with you -- and just as you are glad to have electricity now, we are glad to see you using it -- and you are a mighty important user, too. Now that you have electricity on your farm, Mr. Leffel, what are you doing with it?

Mrs.L: I would like to answer that question, Mr. Kohlhepp, because we are making the greatest first use of it in the house. We use it for lighting and radio, and I have a flat iron and washing machine, and we pump water for both the house and the barn with electricity. Even though we have been using it only a short time, I don't see how we ever managed to get along without it.

Mr. L: Electricity in the house will make work easier for my wife and she deserves help.

Mr. K: Thank you, Mr. and Mrs. Leffel. It certainly has been nice to have you with us, and now -- we come to the really important part of this program. The farm of Mr. and Mrs. Herman J. Leffel on Route 4, Edgar, Wisconsin, is the 100,000th farm connected to the lines of the business-managed electric companies in Wisconsin. The seed for this achievement was sown some 25 years ago with the Ripon Experimental Line and Electro-Test Farms as the foregoing speakers have explained to you. The connection of the 100,000th farm marks an important milestone in the program of business-managed electric companies to bring electricity to every farm in Wisconsin. Today we are very close to that goal. (Turning

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Before you leave, Mr. Leffel, I would like to introduce you to (name) one of the six pioneers on the Ripon Experimental Line. Mr. Leffel, this is Mr. . . . . I would like to introduce- . . . . . .one of the 15 Electro-Test farmers. Introducing you to these typical pioneers is an historic occasion because, you, today, would not be the 100,000th farm to be connected to business-managed electric company lines if it had not been for the cooperation of these pioneer farmers in the development of applications of electricity on the farm. Neither would cooperatives be serving more than 57,000 farms, nor would municipally owned systems be serving some 8,000 farms if it were not for the spade work done a quarter of a century ago.

The electric companies are continuing their pioneering work. At the Electric Research Farm near Madison, electric companies in conjunction with the University are pioneering ways to reduce chore time and increase farm production. You are cordially invited to visit the Research Farm.

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CURTIS HATCH, DODGEVILLE
PRESIDENT, WISCONSIN FARM BUREAU FEDERATION

Hatch: We of the Wisconsin Farm Bureau Federation take pride in participating in this historic celebration. We worked with electric companies and the University in pioneering farm electrification. Senator George W. Hull of Whitewater, who was president of the Wisconsin Farm Bureau Federation in the 1920's, represented our organization on the Wisconsin Committee on the Application of Electricity to Agriculture, which established the organized research work in 1924.

The early pioneering in rural electrification was in a sense, a gamble. It was a gamble in economical power transmission. It was a gamble in an unknown customer market. It was a great forward movement in which the city electrical merchant went out among rural people and learned much of the business of farming.

These pioneer electric companies not only learned how the farmer lived, but they showed him a much needed better way to live. They put new tools in his hands with which he could produce more efficiently and more economically a better quality product. Electricity shortened and made more pleasant his hours in the barn and gave him more time to work in the fields or relax in his home. It brought added enjoyment to rural family life.

The farmer's wife was not overlooked in this great transition. She came in for a large share of the benefits of better living through applying electrical services. Many of our farm homes have become as well equipped as those of our city cousins. The farm home has become a more attractive place in which to live.

Electric service before it was brought to our rural homes was thought of as a luxury by farm people. There was a feeling of uncertainty, almost a feeling of extravagance as the high line advanced in construction down the road. Farm people have always been eager to accept new ventures and once the light came on, a new era of farming had begun. Electrically drawn machines began to do much of the hard work formerly done by human hands. Gadgets new to farm folks became necessities. The pioneering appliances found so useful brought immediate demand for refinement and for expansion in applying electric service to other phases of farm living.

Today farming is dependent upon electric service in many, many ways. It is a vital part of our agricultural economy. From its start, 25 years ago, the service has reached into almost every phase of agricultural work. The development of electric service on the farm, as well as in the factories of our cities, has helped to make our nation the outstanding example of what men do when they have the will to help each other and to help themselves.

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GOVERNOR OSCAR RENNEBOHM

Gov. Everyone in Wisconsin should take pride in the rural electrification accomplishments in our State.

Wisconsin has become the Dairyland of our nation, largely because farmers and processors of dairy products have used electric service efficiently and abundantly. Electric operations in barns keep cows cleaner, healthier and more productive.

Electricity enables Wisconsin farmers to produce more milk and cheese than is produced in any other state. It has raised the standard living of farmers and has given the farm family all the conveniences of city life.

Farm folk used more electricity than city residents. Official records of the Public Service Commission of Wisconsin show that the average annual use by rural customers during 1948 was 2,664 kilowatt-hours. This consumption is 854 kilowatt-hours more than was used by city residential customers.

As Governor of Wisconsin and as a farmer, I commend the various suppliers of electric service for their outstanding achievement in making electricity available to 97% of all the workable farms in the State. I hope we will soon celebrate the 100% saturation point.

I congratulate the business-managed electric companies, the electric cooperatives and the municipally-owned electric systems on their indivdual achievements. I hope they will work together as a team to aid farmers in making still more efficient and profitable use of electricity.

I commend particularly the business-managed companies for their leadership in pioneering farm electrification. Back there in the early 1920's, it had not been proved that farmers could use electricity profitably for the many tasks that are now profitably performed electrically instead of manually. Electric companies procured the aid of farmers on the Ripon Experimental Line, the fifteen Electro-Test farmers, the College of Agriculture of our University, the Wisconsin Farm Bureau Federation, the State Department of Agriculture, the Public Service Commission and equipment manufacturers in establishing the organized research program in 1924. This valuable experimental work - a basic achievement in fundamental research - sold electric companies and farmers that farm electrification would be mutually profitable and induced manufacturers to develop present-day electrical equipment.

I want to commend the electric cooperatives for their aggressive and successful promotion of farm electrification and for obtaining their rightful share of federal funds for Wisconsin use.

The entire achievement of the electric industry is another brilliant chapter of accomplishment under our free opportunity system.

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NAMES OF SOME OF THE FARMERS WHO JOINED IN PIONEERING FARM ELECTRIFICATION RESEARCH IN 1920's

THESE FARMERS STATED THEY WOULD PARTICIPATE IN CEREMONIES ON NOVEMBER 8

RIPON EXPERIMENTAL LINE FARMERS

Mr. G. Tabbert
Mr. G. Stellmacher
Mr. Albert Badtke
Mr. William F. Stoltz
Mr. E. R. Meacham (Original Project Leader for the College of Agriculture, University of Wisconsin)

ELECTRO TEST FARMERS

Mr. Gilbert Dopp, son of Homer R. Dopp, Oconomowoc
Sponsored by Wisconsin Electric Power Co.
Mr. H. G. Joeckel, Owner, Jackson, R.R. 1
Sponsored by Wisconsin Gas & Electric Co.
Mr. L. J. Cartier, Whitewater, R.R.1, Owner
Sponsored by Wisconsin Gas & Electric Co.
Mr. Jim Stone for V.P. Klinelop, Owner, Whitewater, R.R.4
Sponsored by Wisconsin Gas & Electric Co.
Mr. John Pansie, Owner, Pickett, R.R. 26
Sponsored by Wisconsin Public Service Corp.
Mr. Henry Goedjen, Owner, Two Rivers, R.R. 2
Sponsored by Wisconsin Public Service Corp.
Mr. Joseph Jucken, Owner, Chilton
Sponsored by Wisconsin Public Service Corp.
Mr. William Aspinwall, Owner, Lake Geneva, R.R. 1
Sponsored by Southern Wisconsin Electric Co.
Mr. George Matison, Owner, Lake Geneva, R.R. 1
Sponsored by Southern Wisconsin Electric Co.
Mr. Martin Hoppert, Owner, Sheboygan, R. R. 4
Sponsored by Wisconsin Power and Light Co.
Mr. Joseph Farness, Owner, De Forest
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Mr. James Sullivan, Managing Editor, Wisconsin REA News
Mr. J. A. Laack, Honorary President, Wisconsin Municipal Utilities Association

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